No. 9900399

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Turf Merchants, 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 [illegible]GHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR [illegible]ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE [illegible] PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE [illegible], OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT [illegible] BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Bonsai 2000'

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 twenty-fifth day of April, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

:EPRODU OCAL Y. 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 - 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 OWNER: Turf Merchants, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: TMI-Bullet

3. VARIETY NAME: Bonsai 2000

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*: 33390 Tangent Loop, Tangent, Oregon 97389

5. TELEPHONE *(include area code)*: (541)926-8649

6. FAX *(include area code)*: (541)926-4435

FOR OFFICIAL USE ONLY

PVPO NUMBER: 9900399

FILING DATE: 8/23/99

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*:

8. IF INCORPORATED, GIVE STATE OF INCORPORATION:

9. DATE OF INCORPORATION:

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Dr. Michael D. Richardson
University of Arkansas, Dept. of Horticulture
309 Plant Science Bldg., Fayetteville, AR 72701

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 2450.00 DATE 8/23/99

CERTIFICATION FEE: $ 432.- DATE 3/21/2005

11. TELEPHONE *(include area code)*: (501)575-2860

12. FAX *(include area code)*: (501)575-8619

13. E_MAIL: mricha@comp.uark.edu

14. CROP KIND *(Common Name)*: Tall Fescue

15. GENUS AND SPECIES NAME OF CROP: Festuca arundinacea

16. FAMILY NAME *(Botanical)*: Graminae

17. IS THE VARIETY A FIRST GENERATION HYBRID? ☐ YES ☒ NO

18. 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 Variety
- d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☒ Exhibit E. Statement of the Basis of the Owner'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 the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act*

☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no," go to item 22)*

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

☒ YES ☐ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☒ YES ☐ NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?

☐ YES ☒ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners 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 owner(s) is(are) the owner 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.

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

SIGNATURE OF OWNER: [signature]

SIGNATURE OF OWNER:

NAME *(Please print or type)*: Michael D. Richardson, PhD

NAME *(Please print or type)*:

CAPACITY OR TITLE: Plant Breeder

DATE: 8/18/99

CAPACITY OR TITLE:

DATE:

9900300

INSTRUCTIONS

ENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed pplication form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid ariety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable *(in the sense at 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 pplications 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 rotection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the ce of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use asking 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 $300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvp.htm

EM

a. 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

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

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

. 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.

. 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.

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 labeled, 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).*

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

See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety uding any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

First seed of the variety, Bonsai 2000 was sold on Aug 31, 1998

CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the ty is protected by intellectual property right (Plant Breeder's Right or Patent).)*

ES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's sentative 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 nment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 75(h) of the Regulations and Rules of Practice.)*

void conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, ing 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 ining 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 ng 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 Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all ited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of unications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is al opportunity employer.

70 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.

2

Exhibit A

Origin and Breeding History - Bonsai 2000

The variety, Bonsai 2000, is a 94-clone synthetic variety developed from the varieties, Aztec, Bonsai, and Twilight, plus individual plant selections that trace to collections made in near Athens, Georgia, Memphis, Tennessee, and the Willamette Valley region of Western Oregon. The overall breeding methods used to develop Bonsai 2000 were phenotypic matched mating combined with recurrent mass selection.

During the winter of 1991-92, a large clonal collection was made from production fields of the varieties, Aztec, Bonsai, and Twilight, located in Western Oregon. Clones were selected based on dark green genetic color, vigor, and freedom from winter diseases such as *Cercospora sp.* leaf spot. The original collections yielded approximately 500 clones from Aztec, 600 clones from Bonsai, and 500 clones from Twilight. Prior to transplanting to the field, all clones were screened and identified as to the presence of *Neotyphodium coenophialum* endophyte. All clones containing endophyte were planted in a large, space-plant nursery near Aurora, Oregon and allowed to develop to maturity. Just prior to anthesis, clones of medium-late maturity with an erect growth habit, short mature height, and dark green genetic color were selected from the space-plant nursery. These clones were placed in isolation from other tall fescue pollen sources and allowed to interpollinate. In addition to the varietal germplasm, several clones collected during the mid-1980's in Georgia and Tennesee, and clones collected from Western Oregon in the winter of 1991 were added to the cross (Table 1)

The isolation method involved placing the clones in pots so they could be arranged very close together and moved several times during the pollination period to ensure random pollination among all clones. Seeds from each clone of the Syn-1 crossing block were harvested and conditioned separately and used to plant replicated progeny turf trials in the fall of 1992. Turf plots (1 x 1 m) were planted near Aurora, Oregon and maintained under a moderate fertilization program (20 g N / m^2 / year) and at a 3.0 cm cutting height.

USDA-AMS-PVPO

During the winter after their establishment (1992-93), selections were again made from the progeny turf plots, with selections based on overall turf performance to date, good winter color retention, and resistance to winter leaf spot. Several clones were removed from subsequent crosses due to poor turf attributes From each replicated plot, a strip of sod approximately 5.0 cm wide and 50 cm long was removed in late Jan., 1993, and plants were separated into individual tillers. Individual tillers were established in planting flats containing a commercial potting mix and established in a cold frame greenhouse for approximately 8 weeks prior to transplanting to the field in March, 1993. The Syn-2 space-plant nursery contained approximately 4000 plants and was planted in isolation from other tall fescue pollen sources. Throughout the growing season and until anthesis, the nursery was rogued heavily, removing those plants that did not match phenotype or which exhibited other undesirable characteristics, such as poor inflorescence development, disease susceptibility, or general lack of vigor. The final

crossing block contained approximately 1900 plants, from which the seed was harvested and bulked to form the Syn-2 seed.

Seed from the Syn-2 generation was planted immediately into greenhouse flats and approximately 4000 seedlings were transplanted to a Syn-3 crossing block during September, 1993. The process of roguing was repeated throughout the 1994 growing season up to anthesis and during the harvest to remove those clones with low floret fertility. The final Syn-3 nursery contained roughly 2600 plants. A 1-acre plot was established from seeds of the Syn-3 crossing block near Brooks Oregon, in the fall of 1995 and the subsequent crop designated breeder seed. Remaining seed from the Syn-3 crossing block is being maintained in cold storage for future breeder seed development.

Table 1. Breeding lines used to develop Bonsai 2000

Variety or Collection location	Number of Clones	Percentage of the Variety
Aztec	6	6.4%
Bonsai	47	50 %
Twilight	18	19.1 %
Athens, Georgia	8	8.5 %
Memphis, Tennessee	6	6.4%
Willamette Valley	9	9.6 %
Totals	**94**	**100 %**

'Bonsai 2000' has been observed for three generations past breeder seed and has been found to be uniform and stable. No variants have been observed in subsequent seed increases.

JaJ 2/18/05

Exhibit B

Statement of Distinctness - The variety Bonsai 2000 is a dark-green, high endophyte content variety of tall fescue that is well-adapted to the tall fescue growing regions of the United States. The major distinct feature of Bonsai 2000 over the parent variety, Bonsai is the vast improvement in overall turf performance relative to its predecessor (Appendix 1). Bonsai 2000 is one of the finest textured tall fescues presently available in the market (Table 16) and has performed well in all areas tested. Bonsai 2000 is also very tolerant of drought compared to other tall fescue varieties (Table 17). Based on the market success obtained by the parent variety Bonsai, it is predicted that Bonsai 2000, with its current improvements, will be well-accepted by the turfgrass user.

'Bonsai 2000' is most similar to 'Bonsai'; however, 'Bonsai 2000' has a taller mature plant height (94 vs 74cm) and a longer panicle length (19 vs 13cm) than 'Bonsai'.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

9900399 Form Approved - OMB No. 0581-0055

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

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

EXHIBIT C
(TALL & MEADOW FESCUES)

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

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Turf Merchants, Inc.	**TMI-Bullet**	**Bonsai 2000**

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)
Turf Merchants, Inc.
33390 Tangent Loop
Tangent OR 97389

FOR OFFICIAL USE ONLY
PVPO NUMBER
9900399

Place the appropriate number that describes the varietal characteristics of this variety in the boxes below. Use leading zeroes when necessary (e.g. 089). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked with 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

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

'99 AUG 23 P12:32 RECEIVED USDA-AMS PVPO

* 2. CYTOLOGY:

__2n=42__ Chromosome Number

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

__2_ Transition Zone __2_ West __2_ Northeast _____ Other (Specify):_____

* 4. MATURITY: (Date First Headed, 10% of Panicle Emergence) - **Table 1**

__7_ Maturity Class 1 = Very early ( ) 2 = AU Triumph 3 = Early (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)

4. MATURITY: (continued)

6 = Bonanza 7 = Late (Silverado) 8 = ( ) 9 = Very late 9900399

Date Headed _____**May 18**_____ Location ___**Tangent,Oregon**_____

__**2**__ Days earlier than __**12**_
Maturity same as __**8**
__2_Days later than __**6**_
} Comparison Variety

---

* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)
Table 2

__ **93.5**_ cm Height

__ **22.1** cm Shorter than _**1**_
Height same as _**11**
__ **19.7**_ cm Taller than _**12**
} Comparison Variety

* INTERNODE LENGTH CM: (First internode subtending the flag leaf)
Table 11

__ **17.2**_ cm Internode Length

__ _**5.6**_ cm Shorter than _**1**_
Length same as _**4**_
__ _**4.6**_ cm Longer than _**12**
} Comparison Variety

* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf collar) - **Table 14**

__ **42.8**_ cm Height

__ **17.1**_ cm Shorter than _**1**_
Height same as _**7**
__ **12.3**_ cm Taller than _**12**
} Comparison Variety

---

* 6. GROWTH HABIT: (Mature Plants) - **Table 4**

_**8.3** 1 = Prostrate ( ) 3 = Semiprostrate ( ) 5 = Horizontal ( )
7 = Semierect (Rebel) 9 = Erect (Mini Mustang)

---

* 7. RHIZOMES (Psuedo):

__ __.__ mm Length _**X**_1 = Absent ( ) 2 = Rare (Rebel) 3 = Common ( )

---

* 8. LEAF BLADE: (Tiller leaves/ turf color) **Table 3**

***6.2** Color: 1 = Light green ( ) 3 = Medium light green ( ) 5 = Green ( )
7 = Medium dark green ( ) 9 = Very dark green ( )

__**5.7**_ Specify rating of comparison variety = **Silverado (8)**

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

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

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

'99 AUG 23 PM 2:32
USDA - AMS - PVPO

8. LEAF BLADE: (continued) - **Table 10**

_7_ Width Class: 1 = Very coarse ( ) 3 = Coarse ( ) 5 = Medium ( ) 7 = Fine ( ) 9 = Very Fine ( )

9900399

* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf) **Table 9**

__ **13.3**_ cm Tiller Leaf Length

__ _**4.4**_ cm Shorter than _**6**_
Length same as _**8**_
__ _**4.0**_ cm Longer than _**12**
} Comparison Variety

* TILLER LEAF WIDTH MM: **Table 10**

_**4.7**_ mm Tiller Leaf Width

_**1.3**_ mm Narrower than_**1**_
Width same as _**8**_
_**1.2**_ mm Wider than _**12**
} Comparison Variety

FLAG LEAF LENGTH CM: **Table 12**

__ _**9.8**_ cm Flag Leaf Length

_**3.4**_ cm Shorter than _**6**_
Length same as _**8**_
_**3.2**_ cm Longer than _**12**
} Comparison Variety

FLAG LEAF WIDTH MM: **Table 13**

_**3.6**_ mm Flag Leaf Width

_**0.6**_ mm Narrower than _**1**_
Width same as _**11**
_**1.2**_ mm Wider than _**12**
} Comparison Variety

---

* 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.) **Tables 5, 16, 17, 18, 21, 22**

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

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

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

***1.8** 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)

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

*__ **18.7**_ cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

_**6.5**_ cm Shorter than _**1**_ _**5.4**_ cm Longer than _**12**

Length same as _**8**

'99 AUG 23 PM 2:32
RECEIVED
USDA-AMS-PVPO

9900399

Comparison Variety

* 11. SEED: (With Lemma & Pelea) **Table 8**

*_**2500**__ __ mg per 1000 seeds

__ **400**__ mg Less than _**6**_

Weight same as _**9**

__ **200**__ mg More than _**8**_

} Comparison Variety

PALEA: (Keels or Margins)

___ Hairs: 1 = Absent ( ) 5 = Short (Missouri 96) 9 = Long ( )

LEMMA:

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

__.__ mm Lemma Length (Mature)

__.__ mm Shorter than ___

Length same as ___

__.__ mm Longer than ___

} Comparison Variety

__.__ mm Lemma Width

__.__ mm Narrower than ___

Width same as ___

__.__ mm Wider than ___

} Comparison Variety

*AWNS: _**9**_ AWNS: 1 = Absent ( ) 9 = Present (Falcon) _**100**_% Plants with awns

_**1.46** mm Awn length (Of those present.)

__.10 mm Shorter than _**12**

Length same as _**11**

_**0.32** mm Longer than _**1**_

} Comparison Variety

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

_**0**_ Melting-out *Drechslera poae*

5.3 Leaf Spot *D. siccans* **(Table 18)**

_**0**_ Net Blotch *D. dictyoides*

5.5 Brown Patch *Rhizoctonia solani* **(Table 19)**

_**0**__ C. Leaf Spot *Cercospora fectucae*

_**0**__ Pink Snow Mold *Gerlachia nivalis*

_**0**__ Silver Top *F. tricinctum, F. roseum*

_**0**__ Blind Seed *Gloeotinia temulenta*

_**0**__ Dollar Spot *Lanzia, Mollerdiscus* spp.

_**0**__ Stem Rust *Puccinia graminis*

_**0**__ T. Blight *Typhula incarnata*

4.7 Pythium Blight *Pythium* spp. **(Table 20)**

_**0**__ Powdery Mildew *Erysiphe graminis*

_**0**__ Crown Rust *Puccinia coronata*

___ Other Disease _____

___ Other Insect _____

___ Other Nematode _____

'99 AUG 23 P12:32
RECEIVED
USDA-AMS-PVPO

13. ENVIRONMENTAL STRESS
Table 17

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

13. ENVIRONMENTAL STRESS: (continued)
Table 14

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

0__ Winter Stress 1 = Susceptible ( ) 5 = Tolerant ( ) 9 = Resistant ( )

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

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

Character	Varieties	Rating	Character	Varieties	Rating
Leaf Width	8	2	Leaf Color	8	3
Panicle Color			Panicle Shape	12	2
Seed Size	9	2	Cold Injury		
Winter Color	12	3	Heat		
Disease	1	1			

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

Data included for morphological comparisons were generated from a spaced planted nursery of individuals from cultivars cultivated at PickSeed West, Tangent, Oregon. The trial was established in November 1996 and again in November 1997. Both trials were arranged in a randomized complete block design with three replications. Each replication for an entry was represented by 20 individuals, planted into a single row at 24 inches apart within the row. Plant nutrition was 35 pounds of N per acre at transplanting time and again in October 1997. Additionally, 90 pounds N per acre was split applied in the spring of each year, with one-half in March and the other half in April.

Data regarding turf performance were collected as part of a multi-location trial conducted by the National Turfgrass Evaluation Program. This trial was planted in the fall of 1996.

Table 1. Heading date of several tall fescues grown near Tangent, Oregon.

Variety	Heading Date (Julian)		
	1996-97	1997-98	Avg.
Bonsai	134.5	144.6	139.6
Bonanza	132.6	143.9	138.3
Silverado	131.4	143.5	137.5
Bonsai 2000	**131.6**	**142.9**	**137.3**
Shortstop	132.3	141.9	137.1
Rebel Jr.	131.7	142.2	137.0
Crewcut	131.0	142.8	136.9
Mini-Mustang	131.6	140.8	136.2
KY-31 (E+)	129.8	141.7	135.8
Rebel II	130.1	141.4	135.8
LSD (0.05)	1.7	2.0	

Table 2. Plant height of several tall fescues planted grown near Tangent, Oregon.

Variety	Plant Height (cm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	125.5	105.6	115.6
Bonanza	106.8	100.5	103.7
Rebel II	109.2	96.0	102.6
Shortstop	99.9	90.0	95.0
Crewcut	102.8	85.0	93.9
Bonsai 2000	**100.0**	**86.9**	**93.5**
Mini-Mustang	90.4	89.1	89.8
Rebel Jr.	90.9	85.2	88.1
Silverado	93.1	77.6	85.4
Bonsai	74.2	73.3	73.8
LSD (0.05)	10.1	11.1	

'99 AUG 23 P12:33
USDA-ARS-PVPO

Bonsai 2000, Turf Merchants, Inc.

Table 3. Genetic color of several tall fescues grown near Tangent, Oregon.

Variety	Genetic color †		
	1996-97	1997-98	Avg.
Bonsai	7.3	7.3	7.3
Bonsai 2000	**6.3**	**6.0**	**6.2**
Mini-Mustang	6.3	5.3	5.8
Crewcut	6.0	5.3	5.7
Rebel Jr.	6.0	5.3	5.7
Silverado	6.3	5.0	5.7
Shortstop	6.0	5.0	5.5
Bonanza	5.3	4.3	4.8
Rebel II	5.3	3.7	4.5
KY-31 (E+)	2.3	1.7	2.0
LSD (0.05)	0.8	1.0	

† - color ratings from 1-9 with 1 = light green and 9 = very dark green

Table 4. Growth habit of several tall fescues grown near Tangent, Oregon.

Variety	Growth habit		
	1996-97	1997-98	Avg.
Crewcut	8.7	nd	8.7
Bonanza	8.3	nd	8.3
Bonsai 2000	**8.3**	**nd**	**8.3**
Shortstop	8.0	nd	8.0
Mini-Mustang	8.0	nd	8.0
Silverado	7.7	nd	7.7
Rebel Jr.	7.7	nd	7.7
Bonsai	7.3	nd	7.3
KY-31 (E+)	6.3	nd	6.3
Rebel II	6.0	nd	6.0
LSD (0.05)	1.0		

'99 AUG 23 P12:32
USDA-AMS-PVPO

†† growth habit ratings from 1-9 with 1 = prostrate, 3 = semi-prostrate, 5 = horizontal, 7 = semi-erect, and 9 = erect.
nd - this data was not collected in the 1997-98 growing season

Table 5. Glume color and awn length of several tall fescues grown near Tangent, Oregon during the 1996-97 growing season. No data was collected for either of these parameters in 1997-98.

Variety	Glume Color †	Awn length (mm)
Bonanza	1.7	1.26
Bonsai	2.0	1.56
Bonsai 2000	**1.7**	**1.46**
Crewcut	1.6	1.40
KY-31 (E+)	1.5	1.14
Mini-Mustang	1.7	1.16
Rebel II	1.8	1.38
Rebel Jr.	1.5	1.29
Silverado	1.8	1.15
Shortstop	1.9	1.26
LSD (0.05)	0.3	0.27

† - color ratings from 1-3 with 1 = light yellowish-green, 2 = med-dark and 3 = purplish, glume color was not scored the second year

Table 6. Seed length of several tall fescues grown near Tangent, Oregon.

Variety	Seed length (mm)		
	1996-97	1997-98	Avg.
Rebel II	5.7	6.9	6.3
Bonanza	5.7	6.9	6.3
Shortstop	5.6	6.7	6.2
KY-31 (E+)	5.6	6.8	6.2
Bonsai	5.3	6.9	6.1
Crewcut	5.2	6.9	6.1
Bonsai 2000	**5.3**	**6.7**	**6.0**
Silverado	5.5	6.2	5.9
Rebel Jr.	5.3	6.2	5.8
Mini-Mustang	5.2	6.2	5.7
LSD (0.05)	0.4	0.6	

† - color ratings from 1-9 with 1 = light green and 9 = very dark green

'99 AUG 23 P12:33
USDA-AMS-PVPO

Table 7. 10-seed width of several tall fescues grown near Tangent, Oregon.

Variety	10-seed width (mm)		
	1996-97	1997-98	Avg.
Shortstop	15.2	13.5	14.4
KY-31 (E+)	14.7	14.0	14.4
Rebel II	14.7	13.7	14.2
Rebel Jr.	14.2	13.8	14.0
Bonsai 2000	**13.8**	**14.0**	**13.9**
Bonanza	13.8	13.5	13.7
Silverado	13.8	13.0	13.4
Mini-Mustang	13.8	13.0	13.4
Bonsai	13.3	12.5	12.9
Crewcut	13.8	10.3	12.1
LSD (0.05)	1.2	2.1	

Table 8. 1000-seed weight of several tall fescues grown near Tangent, Oregon.

Variety	1000-seed weight (g)		
	1996-97	1997-98	Avg.
Rebel II	3.0	2.7	2.9
KY-31 (E+)	2.8	2.6	2.7
Shortstop	2.9	2.4	2.7
Bonanza	2.8	2.5	2.7
Bonsai 2000	**2.4**	**2.5**	**2.5**
Rebel Jr.	2.7	2.3	2.5
Crewcut	2.7	2.2	2.5
Bonsai	2.3	2.2	2.3
Silverado	2.6	1.9	2.3
Mini-Mustang	2.3	2.1	2.2
LSD (0.05)	0.3	0.3	

'99 AUG 23 PM 2:53
USDA-AMS-PVPO

Table 9. Tiller leaf length (cm) of several tall fescues grown near Tangent, Oregon.

Variety	Tiller-leaf length (cm)		
	1996-97	1997-98	Avg.
Rebel II	20.1	15.2	17.7
KY-31 (E+)	21.0	14.3	17.7
Bonanza	19.9	11.7	15.8
Shortstop	17.2	13.1	15.2
Rebel Jr.	16.7	13.0	14.9
Crewcut	18.1	11.2	14.7
Mini-Mustang	15.8	11.9	13.9
Silverado	16.9	10.7	13.8
Bonsai 2000	**17.3**	**9.3**	**13.3**
Bonsai	10.3	8.2	9.3
LSD (0.05)	2.9	3.3	

Table 10. Tiller leaf width (mm) of several tall fescues grown near Tangent, Oregon.

Variety	Tiller-leaf width (mm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	6.9	5.0	6.0
Rebel II	5.6	5.5	5.6
Bonanza	5.6	5.0	5.3
Shortstop	5.5	4.1	4.8
Silverado	5.5	3.9	4.7
Bonsai 2000	**5.4**	**3.9**	**4.7**
Rebel Jr.	5.0	4.2	4.6
Crewcut	4.9	4.1	4.5
Mini-Mustang	4.6	4.0	4.3
Bonsai	3.3	3.7	3.5
LSD (0.05)	0.9	0.8	

'99 AUG 23 P12:34
USDA-AMS-PVPO

Table 11. Internode length (cm) of several tall fescues grown near Tangent, Oregon.

Variety	Internode length (cm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	24.0	21.5	22.8
Rebel II	18.7	18.2	18.5
Bonanza	18.0	18.5	18.3
Bonsai 2000	**17.9**	**16.4**	**17.2**
Shortstop	16.0	16.5	16.3
Crewcut	17.2	14.8	16.0
Silverado	16.4	13.7	15.1
Rebel Jr.	14.6	15.4	15.0
Mini-Mustang	12.9	15.7	14.3
Bonsai	11.7	13.4	12.6
LSD (0.05)	2.7	3.0	

Table 12. Flag-leaf length (cm) of several tall fescues grown near Tangent, Oregon.

Variety	Flag-leaf length (cm)		
	1996-97	1997-98	Avg.
Rebel II	15.8	10.5	13.2
Bonanza	15.2	10.1	12.7
KY-31 (E+)	14.4	9.8	12.1
Shortstop	12.9	8.7	10.8
Rebel Jr.	12.6	8.8	10.7
Crewcut	13.6	7.7	10.7
Mini-Mustang	12.0	7.6	9.8
Bonsai 2000	**13.1**	**6.5**	**9.8**
Silverado	12.1	7.4	9.8
Bonsai	7.6	5.5	6.6
LSD (0.05)	1.9	2.0	

'99 AUG 23 PM 2:34
RECEIVED
USDA-AMS-PVPO

Table 13. Flag-leaf width (mm) of several tall fescues grown near Tangent, Oregon.

Variety	Flag-leaf width (mm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	4.8	3.5	4.2
Rebel II	3.8	3.9	3.9
Bonanza	3.9	3.9	3.9
Shortstop	4.1	3.5	3.8
Bonsai 2000	**3.8**	**3.4**	**3.6**
Crewcut	3.5	3.4	3.5
Rebel Jr.	3.5	3.4	3.5
Silverado	3.9	3.1	3.5
Mini-Mustang	3.2	2.8	3.0
Bonsai	2.1	2.6	2.4
LSD (0.05)	1.0	0.9	

Table 14. Flag-leaf height (cm) of several tall fescues grown near Tangent, Oregon.

Variety	Flag-leaf height (cm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	66.2	53.5	59.9
Bonanza	48.5	49.7	49.1
Rebel II	52.3	45.3	48.8
Bonsai 2000	**45.4**	**40.1**	**42.8**
Shortstop	42.4	42.7	42.6
Crewcut	44.9	37.7	41.3
Mini-Mustang	37.7	41.5	39.6
Rebel Jr.	38.2	40.5	39.4
Silverado	40.9	34.4	37.7
Bonsai	29.2	31.7	30.5
LSD (0.05)	5.9	8.2	

'99 AUG 23 PM 2:34
USDA-ARS-PVPO

Table 15. Branch pubescence of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Branch † Pubescence
Silverado	2.27
KY-31 (E+)	2.13
Mini-Mustang	2.13
Bonanza	2.03
Crewcut	2.03
Shortstop	2.00
Rebel II	1.93
Bonsai	1.83
Bonsai 2000	**1.80**
Rebel Jr.	1.63
LSD (0.05)	0.35

† - branch pubescence ranked from 1-3 with 1 = smooth, 2 = intermediate, and 3 = rough

Table 16. Panicle shape of several tall fescues grown near Tangent, Oregon.

Variety	Panicle shape †		
	1996-97	1997-98	Avg.
Bonanza	5.4	4.7	5.1
Mini-Mustang	5.3	4.3	4.8
Rebel II	5.1	4.2	4.7
KY-31 (E+)	5.1	3.9	4.5
Shortstop	5.0	4.0	4.5
Rebel Jr.	5.1	3.8	4.5
Crewcut	5.2	3.5	4.4
Bonsai	4.9	3.8	4.4
Silverado	5.0	3.6	4.3
Bonsai 2000	**5.3**	**3.0**	**4.2**
LSD (0.05)	0.4	0.9	

† - panicle shape; 1= narrow tapering, 5=ovate, 7=oblong, 9=other

'99 AUG 23 PM 2:34
USDA-AMS-PVPO

9900399

Table 17. Panicle orientation of several tall fescues grown near Tangent, Oregon.

Variety	Panicle orientation ††		
	1996-97	1997-98	Avg.
Bonsai	8.1	8.3	8.2
Rebel Jr.	7.3	8.0	7.7
Silverado	6.5	8.4	7.5
Shortstop	6.9	8.1	7.5
Mini-Mustang	5.9	8.0	7.0
Crewcut	6.1	7.9	7.0
Bonsai 2000	**6.3**	**7.7**	**7.0**
Bonanza	5.3	6.9	6.1
Rebel II	5.1	6.8	6.0
KY-31 (E+)	4.1	7.6	5.9
LSD (0.05)	1.4	0.9	

†† - panicle orientation; 1=nodding, 5 = intermediate, 9=erect

Table 18. Panicle length (cm) of several tall fescues grown near Tangent, Oregon.

Variety	Panicle length (cm)		
	1996-97	1997-98	Avg.
KY-31 (E+)	26.9	23.4	25.2
Bonanza	24.9	24.0	24.5
Rebel II	23.4	21.7	22.6
Shortstop	21.4	20.4	20.9
Rebel Jr.	20.9	20.2	20.6
Crewcut	22.5	18.7	20.6
Mini-Mustang	19.7	19.3	19.5
Bonsai 2000	**19.8**	**17.6**	**18.7**
Silverado	19.0	18.1	18.6
Bonsai	13.2	13.4	13.3
LSD (0.05)	2.0	3.4	

'99 AUG 23 PM 2:35
USDA-AMS-PVPO

Table 19. Panicle Branch number (lowest whorl) of several tall fescues grown near Tangent, Oregon.

Variety	Panicle Branch Number (lowest whorl)		
	1996-97	1997-98	Avg.
Rebel Jr.	1.92	1.90	1.91
Bonanza	1.87	1.92	1.90
Rebel II	1.82	1.92	1.87
Mini-Mustang	1.90	1.77	1.84
Crewcut	1.88	1.78	1.83
KY-31 (E+)	1.88	1.78	1.83
Silverado	1.80	1.72	1.76
Bonsai 2000	**1.67**	**1.60**	**1.64**
Shortstop	1.78	1.31	1.55
Bonsai	1.60	1.45	1.53
LSD (0.05)	0.18	0.39	

Table 20. Panicle type of several tall fescues grown near Tangent, Oregon.

Variety	Panicle type †		
	1996-97	1997-98	Avg.
Bonanza	5.6	3.7	4.7
KY-31 (E+)	5.7	3.4	4.6
Mini-Mustang	5.5	3.4	4.5
Crewcut	5.4	3.1	4.3
Rebel Jr.	5.2	3.1	4.2
Shortstop	5.3	2.9	4.1
Rebel II	5.4	2.8	4.1
Silverado	5.3	2.7	4.0
Bonsai	4.9	2.7	3.8
Bonsai 2000	**5.1**	**2.4**	**3.8**
LSD (0.05)	0.5	1.0	

† -panicle type; 1=compact, 5=intermediate, 7=open, 9=other

'99 AUG 23 P2:35
USDA-ARS PVPO

9900399

9900399

Table 21. Anther color of several tall fescues planted near Tangent, Oregon in the fall of 1996 - 1997 data

Variety	Yellowish-Green	Green	Bluish-green	Purplish	Reddish	Other
	%					
Bonsai 2000	**98**	**0**	**0**	**2**	**0**	**0**
Bonanza	95	3	0	2	0	0
Bonsai	97	0	0	3	0	0
Crewcut	100	0	0	0	0	0
KY-31 (E+)	100	0	0	0	0	0
Mini-Mustang	98	2	0	0	0	0
Rebel II	100	0	0	0	0	0
Rebel Jr.	100	0	0	0	0	0
Silverado	98	0	0	2	0	0
Shortstop	95	0	0	5	0	0

Table 22. Anther color of several tall fescues planted near Tangent, Oregon in the fall of 1997 - 1998 data

Variety	Yellowish-Green	Green	Bluish-green	Purplish	Reddish	Other
	%					
Bonsai 2000	**96**	**4**	**0**	**0**	**0**	**0**
Bonanza	94	6	0	0	0	0
Bonsai	97	3	0	0	0	0
Crewcut	97	3	0	0	0	0
KY-31 (E+)	97	3	0	0	0	0
Mini-Mustang	99	1	0	0	0	0
Rebel II	95	5	0	0	0	0
Rebel Jr.	95	5	0	0	0	0
Silverado	97	3	0	0	0	0
Shortstop	97	3	0	0	0	0

USDA-AMS-PVPO
RECEIVED
AUG 23 12:35

TABLE 25.

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS 1/
1998 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	NY1	OH1	OK1	SC2	UT1	VA1	VA4	WA1	MEAN
MB 213	8.0	7.0	7.7	5.0	8.7	6.7	5.7	8.0	7.0	8.3	9.0	7.0	7.3	7.0	8.3	7.0	8.0	8.3	7.3	5.3	7.7	8.3	7.0	6.3	6.3	6.0	7.0	8.7	7.3
MB 214	8.7	7.0	7.7	5.3	7.7	7.3	6.0	7.7	6.3	8.0	9.0	7.3	7.0	6.7	8.0	7.3	7.7	7.3	7.0	5.3	8.0	8.3	7.0	6.7	6.7	6.7	7.0	8.3	7.3
MB 29	7.3	7.0	7.0	5.3	7.3	6.7	5.3	6.7	7.0	8.3	9.0	6.7	7.7	6.3	8.7	7.3	7.3	8.0	7.7	5.3	8.0	8.7	7.0	6.7	6.3	7.0	6.7	8.3	7.2
MB 28	8.3	7.0	7.3	4.5	7.7	7.0	6.0	7.7	6.7	7.3	9.0	7.3	7.3	6.7	8.0	7.3	7.7	8.0	6.3	4.7	7.7	8.7	7.0	7.0	7.0	6.3	6.3	8.0	7.1
MB 26	7.0	7.0	7.3	5.3	8.0	6.0	5.7	7.7	6.7	7.3	9.0	7.0	7.3	6.7	8.3	7.3	7.3	8.0	7.3	5.0	7.3	8.7	7.0	7.0	6.7	6.0	7.0	8.7	7.1
REBEL 2000 (AA-989)	8.0	7.0	7.0	4.3	8.0	7.0	5.3	6.7	6.3	7.3	9.0	7.0	7.0	6.7	8.3	7.3	7.0	8.3	7.0	6.0	8.0	8.0	7.0	7.0	7.3	5.7	6.3	9.0	7.1
ZPS-5LZ	6.3	7.0	7.0	4.7	8.3	7.0	5.7	7.7	6.0	8.3	9.0	7.0	7.0	6.3	8.7	7.0	7.7	8.0	7.7	5.0	7.3	8.0	7.0	6.3	7.3	6.3	6.7	8.3	7.1
MB 215	7.3	7.0	7.7	5.3	8.3	7.0	5.7	7.7	6.0	7.7	9.0	7.0	6.7	6.7	8.0	7.0	7.3	8.3	7.0	4.7	7.3	8.0	7.0	6.7	7.0	6.3	6.7	7.7	7.1
BAR FA6D USA	8.0	7.0	7.0	4.7	8.0	6.7	5.0	5.7	6.3	7.7	9.0	7.0	8.0	6.3	7.7	7.0	8.0	7.3	6.7	5.0	7.7	8.7	7.0	6.7	7.7	6.3	7.0	8.7	7.1
SHENANDOAH II (WRS2)	8.3	7.0	7.0	5.3	7.7	7.0	5.0	6.3	7.0	8.0	9.0	7.0	7.0	6.0	8.3	7.0	8.0	8.0	6.0	5.0	7.3	8.0	7.0	6.7	6.7	7.0	6.3	8.3	7.0
MB 216	8.0	7.0	7.7	5.3	8.0	7.7	5.3	6.7	6.3	7.7	9.0	7.3	6.3	6.3	8.7	7.0	7.7	7.7	6.7	4.3	6.7	8.0	7.0	6.3	6.7	6.7	7.0	8.3	7.0
PICK FA N-93	7.0	7.0	7.0	4.7	8.3	6.0	5.3	7.3	6.7	8.0	9.0	7.0	6.0	7.0	8.3	7.0	7.7	7.7	8.3	5.0	7.0	8.7	7.0	6.3	6.7	6.0	6.7	8.3	7.0
BAR FA6 US1	7.3	7.0	7.0	5.0	9.0	6.3	5.3	6.3	7.0	7.0	9.0	7.3	7.0	7.0	7.0	7.3	7.0	8.0	7.3	4.7	8.0	8.3	7.0	6.3	7.0	6.0	6.7	8.3	7.0
EA 41	8.7	7.0	7.7	4.7	8.0	6.7	6.0	6.7	6.7	7.7	8.7	7.0	7.0	6.3	8.0	7.0	7.3	7.7	7.0	5.0	7.3	8.0	7.0	6.0	5.7	7.0	6.7	8.3	7.0
ARABIA (J-5)	6.7	7.0	7.3	4.3	7.7	7.0	5.3	7.7	6.3	7.3	9.0	7.0	6.3	7.0	7.7	7.0	7.3	7.0	7.3	5.3	7.0	8.3	7.0	6.3	8.3	6.7	6.7	8.3	7.0
BAR FA6 US3	7.3	7.0	7.0	4.7	8.7	5.7	5.3	7.7	6.3	7.3	9.0	7.0	6.7	6.7	7.3	7.0	7.7	8.0	7.0	5.3	7.7	8.3	7.0	6.3	6.0	6.3	6.7	8.3	7.0
BAR FA6 US2U	7.0	7.0	7.0	5.0	8.0	6.7	5.7	7.3	6.3	7.3	9.0	7.0	6.7	6.3	7.7	7.3	7.3	7.7	6.7	5.0	7.0	8.0	7.0	6.7	7.0	6.3	6.7	8.7	7.0
MILLENNIUM (TMI-RBR)	7.3	7.0	7.0	5.0	8.7	6.7	5.0	6.7	6.0	7.0	9.0	7.0	7.3	6.3	8.3	7.3	7.0	8.0	6.7	5.3	7.0	8.0	7.0	6.0	6.3	6.0	7.0	8.3	6.9
PICK FA 6-91	6.3	6.7	7.7	5.0	8.3	5.0	5.7	7.3	6.0	7.3	9.0	6.7	6.7	7.0	8.3	7.0	7.3	7.3	8.0	4.7	7.7	8.3	7.3	6.7	6.3	5.3	6.3	8.3	6.9
COYOTE	8.3	7.0	7.0	4.0	7.7	6.7	5.0	6.7	7.0	7.7	9.0	7.0	7.3	6.3	8.0	7.0	7.7	8.0	7.0	5.0	7.3	8.0	7.0	6.7	6.0	5.3	6.0	8.0	6.9
MB 212	8.3	7.0	7.0	4.7	7.7	7.0	5.3	6.7	6.7	7.7	9.0	7.0	6.7	5.7	8.0	7.0	7.3	7.3	7.0	4.7	7.7	8.0	7.0	6.3	7.0	6.3	6.0	7.7	6.9
PLANTATION (PENNINGTON-1901)	8.7	7.0	7.0	4.0	8.7	7.0	5.3	6.3	6.0	8.3	9.0	6.7	7.3	6.3	8.0	7.3	7.3	8.0	5.7	4.7	7.0	8.0	7.0	6.3	7.0	5.3	6.3	8.0	6.9
VELOCITY (AA-983)	7.7	7.0	7.0	5.0	8.0	6.7	5.7	6.0	6.0	7.7	9.0	7.0	7.0	6.3	7.7	7.0	7.3	8.0	6.3	5.0	7.0	8.0	7.0	6.7	6.7	6.0	7.0	8.0	6.9
MB 211	7.7	7.0	7.0	5.7	8.0	6.3	5.0	6.7	6.3	7.3	9.0	6.7	6.7	6.0	7.7	7.0	7.7	7.7	6.7	5.0	7.3	8.3	7.0	6.3	7.0	6.0	6.3	7.7	6.9
ARID 3 (J-98)	7.0	7.0	7.0	4.3	8.0	6.0	5.0	5.0	6.3	7.3	9.0	7.0	6.7	7.0	8.3	7.0	7.7	7.7	7.7	5.3	7.3	8.0	7.0	6.7	7.0	6.0	6.7	7.7	6.9
PICK FA 20-92	7.3	7.0	7.0	4.5	7.7	6.7	5.3	7.7	6.3	7.7	9.0	7.0	6.7	5.7	8.0	7.0	7.0	7.7	7.0	5.3	6.7	8.3	6.7	6.7	5.0	6.7	7.0	8.0	6.9
ARID 2 (J-3)	5.7	7.0	7.0	5.3	7.7	6.7	5.0	6.3	6.0	7.7	9.0	7.0	6.0	6.3	7.7	7.0	7.7	7.7	6.7	5.0	7.3	8.0	7.0	7.0	7.7	6.3	7.0	7.7	6.9
OFI-951	6.0	7.0	7.0	5.0	7.7	6.3	5.3	7.0	6.3	7.0	9.0	6.7	7.3	7.0	8.7	7.0	7.3	7.3	6.7	4.7	7.3	8.0	7.0	6.0	6.3	6.0	6.7	8.3	6.9
PICK FA 15-92	5.7	7.0	7.0	4.3	8.0	6.7	5.3	6.7	6.0	6.7	9.0	7.0	7.3	6.3	8.0	7.0	7.7	6.7	7.3	5.0	7.7	8.3	7.0	6.7	6.3	6.0	7.0	8.0	6.8
REBEL SENTRY (AA-A91)	7.7	7.0	7.0	5.0	8.0	6.0	5.7	6.7	6.0	8.0	9.0	7.0	6.3	6.0	7.7	7.0	7.3	8.0	6.3	5.0	7.0	7.7	7.0	6.7	6.0	5.7	7.0	8.0	6.8
SCORPION (ZPS-2PTF)	6.0	7.3	7.0	5.0	8.3	7.0	5.0	6.0	6.3	7.3	9.0	7.7	6.7	6.3	7.7	7.0	7.0	7.7	5.7	4.7	6.7	8.0	7.0	6.3	7.0	6.7	6.7	8.3	6.8
PICK FA UT-93	6.0	7.0	7.0	5.0	8.0	5.7	5.0	7.3	6.0	8.0	9.0	6.7	6.0	6.7	7.3	6.7	7.0	7.3	7.3	4.3	7.0	9.0	7.0	6.3	7.3	6.0	7.0	8.0	6.8
BRANDY (J-101)	5.0	7.0	7.0	5.0	8.0	7.0	5.0	8.0	6.3	7.0	9.0	7.0	6.7	6.0	8.3	7.0	7.7	8.0	6.0	5.0	7.3	8.0	6.7	6.7	6.3	5.7	7.0	7.3	6.8
BAR FA6 US6F	6.3	7.3	7.3	4.7	7.0	7.0	5.3	6.0	6.3	7.3	9.0	7.0	7.0	6.3	8.0	7.0	7.3	7.3	5.3	5.0	7.0	8.0	7.0	6.7	7.3	6.3	6.7	7.7	6.8
BAR FA 6LV	6.3	7.0	7.0	5.0	8.0	5.7	5.3	7.3	6.3	7.7	8.7	7.7	6.5	5.7	8.0	7.0	7.0	7.0	5.7	5.3	7.0	8.0	7.0	6.3	6.3	6.3	7.0	8.0	6.8
CORONADO GOLD (PST-5RT)	7.3	7.0	7.0	4.3	7.7	6.3	5.0	7.3	6.0	7.3	9.0	6.7	7.3	6.0	8.0	7.0	7.3	7.3	6.0	4.3	7.3	8.0	6.3	6.0	6.3	6.7	6.0	8.3	6.8
CORONADO	7.0	7.3	7.0	4.7	7.0	6.7	5.0	6.7	6.0	7.3	9.0	6.0	6.7	5.7	8.0	7.0	7.0	7.7	6.7	5.0	7.0	8.0	7.0	6.7	7.0	5.7	6.7	7.7	6.8
SUNPRO	6.0	7.3	7.0	5.3	7.3	6.3	5.0	5.7	6.3	7.7	9.0	6.7	7.0	6.3	7.3	7.0	7.0	7.7	6.3	4.7	6.7	8.0	6.7	6.3	7.0	5.7	7.0	8.7	6.8
PICK FA XK-95	7.3	7.0	7.3	5.0	7.3	7.0	5.0	6.0	6.3	7.3	8.7	6.3	7.0	6.0	7.3	7.0	7.0	7.7	6.0	4.3	7.3	8.0	7.0	7.0	5.7	6.0	6.3	8.3	6.7
CROSSFIRE II	7.3	7.0	6.7	5.0	7.0	7.0	5.0	5.7	6.0	7.0	8.7	7.0	7.3	6.0	8.0	7.3	7.3	7.7	6.3	4.7	8.0	7.7	7.0	6.3	6.3	5.3	6.0	7.7	6.7
SHORTSTOP II	6.0	7.0	7.0	5.0	7.7	6.0	5.0	5.7	5.7	7.3	9.0	7.3	6.0	6.0	7.7	7.0	7.3	8.0	7.0	4.3	7.7	8.0	6.7	6.3	7.0	5.7	7.0	8.0	6.7
OFI-96-31	7.0	7.0	7.0	4.7	8.0	5.3	5.0	5.3	6.0	7.7	9.0	6.3	7.0	6.0	8.0	7.0	7.7	7.7	6.0	5.0	7.3	7.7	7.0	6.3	6.0	6.0	6.7	8.3	6.7
GAZELLE	6.3	7.3	7.0	4.7	8.3	6.0	5.3	6.7	6.0	7.0	9.0	7.3	6.3	6.3	7.0	7.0	7.7	7.3	7.0	5.0	7.0	8.3	6.0	6.7	6.3	5.0	6.0	8.0	6.7
REMBRANDT (LTP-4026 E+)	7.3	7.0	7.0	4.7	7.7	7.0	6.0	5.3	6.0	7.0	9.0	6.7	6.0	6.0	7.7	7.0	7.0	7.7	6.0	4.3	8.0	8.0	6.7	6.7	6.3	5.7	6.3	7.3	6.7

'99 AUG 23 PM 2:38
USDA-AMS-PVPO
RECEIVED

Table 30

9900399

Bonsai 2000, Turf Merchants, Inc.

121

TABLE 25. (CONT'D)

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS
1998 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	NY1	OH1	OK1	SC2	UT1	VA1	VA4	WA1	MEAN
CU9501T	7.0	7.0	7.0	4.7	7.3	7.0	5.0	5.3	6.0	7.0	8.7	6.3	6.7	5.7	8.0	7.0	7.7	7.7	5.0	5.3	7.3	8.0	6.7	6.3	6.7	6.7	6.3	7.7	6.7
TWILIGHT II (TMI-TW)	5.7	7.0	7.3	4.7	8.0	7.0	5.3	5.0	6.0	7.3	9.0	7.0	6.0	6.0	7.3	7.0	7.3	7.0	6.3	4.3	7.3	7.7	7.0	6.7	6.7	6.3	6.7	8.0	6.7
GENESIS	7.3	7.0	6.3	5.3	7.7	7.0	5.3	5.0	6.0	7.0	8.7	6.3	.	5.7	7.0	7.3	7.3	7.7	5.3	4.0	7.7	7.7	6.7	6.3	7.3	6.7	6.3	8.0	6.7
OFI-931	6.7	7.0	7.0	4.7	7.3	6.7	5.7	5.3	6.3	7.7	9.0	7.3	6.3	5.3	8.0	7.0	8.0	7.7	4.7	4.3	7.0	7.7	7.0	6.7	6.3	5.3	6.3	8.3	6.7
BAR FA 6D	7.3	7.0	7.0	5.0	7.0	6.3	5.0	5.7	6.0	7.0	9.0	7.0	6.0	5.7	6.7	7.0	7.0	7.3	6.3	5.0	6.7	8.0	7.0	6.3	7.3	6.3	6.7	8.0	6.7
MB 210	8.0	7.0	7.0	4.5	7.3	6.3	5.0	5.7	6.0	7.0	8.7	6.7	6.3	6.0	8.0	7.3	7.3	7.7	5.0	4.0	7.3	8.0	6.3	6.3	7.3	6.0	6.0	8.0	6.6
PICK RT-95	6.7	7.0	7.0	5.3	8.0	6.0	5.0	6.0	6.0	7.0	9.0	6.7	7.3	6.0	7.3	7.0	7.3	8.0	6.0	4.3	7.0	8.0	6.3	6.3	5.7	5.7	6.3	7.7	6.6
ISI-TF10	6.3	7.0	6.7	4.0	7.0	7.0	5.3	6.0	6.0	7.7	9.0	7.0	7.0	5.3	7.0	7.3	7.0	7.3	6.3	4.0	7.0	8.0	7.0	6.0	6.3	6.3	7.0	7.7	6.6
MASTERPIECE (LTP-SD-TF)	7.0	7.0	7.0	4.0	7.3	7.0	5.3	5.7	6.0	7.0	8.7	6.7	7.3	5.7	8.0	7.0	7.0	8.3	5.7	4.3	7.3	8.0	6.7	6.3	5.7	5.7	6.3	7.7	6.6
BRAVO (RG-93)	6.7	7.0	7.0	4.3	7.0	6.7	5.3	5.7	6.0	7.7	9.0	6.3	6.7	5.3	7.7	7.0	7.0	7.7	5.7	4.7	6.7	8.0	6.3	6.3	6.3	6.0	7.0	8.3	6.6
LION	6.3	7.3	7.0	4.5	7.3	6.7	5.7	5.0	6.0	6.7	9.0	6.7	6.7	6.3	7.3	7.0	7.3	7.0	6.0	4.0	7.0	8.0	6.7	6.3	6.3	6.0	7.0	6.7	6.6
OLYMPIC GOLD (PST-5E5)	7.0	7.0	7.0	4.3	7.0	6.3	5.0	6.0	6.3	7.0	8.7	7.0	6.7	5.7	8.7	7.0	7.0	8.0	5.7	4.3	7.3	8.0	6.3	6.3	6.0	5.3	6.0	8.0	6.6
ALAMO E	5.3	7.0	7.0	4.7	7.3	6.7	5.3	7.0	6.0	7.3	8.7	7.3	7.3	5.3	7.3	7.0	7.3	7.3	6.3	4.3	6.7	8.0	6.7	6.7	5.0	5.3	6.7	8.0	6.6
BULLDAWG (PICK GA-96)	5.7	7.0	7.0	4.7	7.3	6.7	5.0	6.0	6.0	6.7	9.0	7.0	7.3	6.0	7.3	7.0	6.7	7.0	6.3	4.0	7.3	8.0	6.7	6.3	7.0	5.3	6.3	8.0	6.6
PST-5M5	7.7	7.0	7.0	4.7	7.7	7.0	5.3	5.3	6.3	7.0	9.0	6.0	6.7	6.0	8.3	7.0	7.0	7.7	5.3	3.7	6.7	8.0	6.3	6.0	6.7	5.3	6.3	7.7	6.6
WATCHDOG (PICK FA B-93)	7.0	7.0	6.7	5.0	8.0	7.0	5.0	5.3	6.0	7.3	8.7	6.3	6.7	5.7	7.7	7.0	7.3	7.3	5.0	5.0	7.3	7.7	6.7	5.7	7.0	5.3	6.0	7.7	6.6
CHAPEL HILL (TA-7)	7.7	7.0	6.3	4.3	7.7	6.7	5.0	5.0	6.0	7.3	8.7	7.0	7.0	5.7	7.0	7.0	7.3	7.3	5.3	5.3	6.7	8.3	6.7	5.7	6.3	6.0	6.0	7.7	6.6
TAR HEEL	6.7	7.0	7.3	4.7	7.7	7.0	5.0	5.3	6.0	7.0	8.7	6.0	6.3	5.7	7.0	7.0	7.3	7.3	5.0	4.3	6.3	8.0	6.7	6.7	7.0	5.7	6.0	8.0	6.5
OFI-FWY	5.3	7.3	6.7	5.0	6.7	6.3	5.0	5.0	6.3	7.0	8.7	5.7	6.3	5.7	7.0	7.0	7.3	8.3	5.3	4.7	6.7	8.0	6.7	6.7	7.3	6.3	6.3	7.7	6.5
ATF-196	5.7	7.0	7.0	4.7	7.3	6.3	5.0	4.7	6.0	7.0	9.0	6.3	6.7	5.7	7.3	7.0	7.3	7.3	4.7	5.0	7.0	7.7	6.3	6.7	6.7	6.0	6.7	8.3	6.5
SRX 8500	5.7	7.3	6.7	4.0	8.0	7.0	5.0	6.3	5.3	7.0	9.0	6.3	6.0	6.7	7.3	7.0	7.0	7.3	6.0	4.0	7.0	8.3	6.7	6.0	5.7	5.7	6.3	7.7	6.5
FINELAWN PETITE	7.3	7.0	6.7	4.3	7.0	7.0	5.0	5.0	6.0	7.0	8.7	6.3	6.7	6.0	7.0	7.0	7.3	7.7	5.0	4.0	6.7	7.7	7.0	6.3	7.0	5.3	6.3	7.7	6.5
SOUTHERN CHOICE	7.0	7.0	7.0	4.7	7.0	6.7	5.0	5.7	6.0	7.3	8.7	6.7	6.7	5.3	7.3	7.0	7.3	7.3	5.3	3.3	6.7	8.0	6.7	6.7	5.3	5.7	6.7	8.0	6.5
ANTHEM II (TMI-FMN)	5.7	7.0	7.0	4.3	7.0	6.7	5.0	5.7	6.0	7.3	8.7	6.3	6.7	5.7	7.0	7.0	7.3	7.0	5.3	4.3	6.0	8.0	6.3	6.3	7.3	6.0	6.7	8.0	6.5
APACHE II	5.7	7.0	7.0	5.0	7.3	6.3	5.0	5.3	6.0	7.0	8.7	6.0	6.7	5.3	7.3	7.0	7.3	8.0	5.7	4.0	7.3	8.0	7.0	6.7	5.3	6.0	6.0	7.7	6.5
PST-5TO	7.3	7.0	7.0	4.3	7.7	6.7	5.3	5.3	6.0	7.3	8.3	7.0	6.3	5.7	7.3	7.0	7.0	7.3	5.3	4.7	6.0	7.7	6.3	6.3	6.0	5.3	6.3	7.7	6.5
AZTEC II (TMI-AZ)	5.3	7.0	7.0	5.0	7.0	7.0	5.7	4.0	6.0	7.0	9.0	6.0	6.7	5.7	7.0	6.7	6.7	7.7	6.0	4.7	6.3	8.0	7.0	7.0	5.0	6.3	6.3	7.7	6.5
COCHISE II	6.3	7.0	6.7	4.7	7.0	6.7	5.0	5.7	5.7	7.0	8.7	6.3	6.0	6.0	7.3	7.0	7.3	6.7	5.3	4.7	7.7	7.7	6.0	6.3	5.0	6.3	6.3	7.7	6.4
WOLFPACK (PST-R5TK)	7.3	7.0	7.0	5.0	7.3	6.7	5.3	5.0	6.0	7.0	8.0	6.3	7.3	5.3	7.3	7.0	7.0	7.3	4.3	3.7	7.0	7.7	6.0	6.3	5.7	5.7	6.0	8.0	6.4
RED COAT (ATF-038)	6.0	7.0	6.7	4.0	7.0	6.0	5.3	5.3	5.7	7.0	9.0	6.3	6.3	5.7	7.0	7.0	7.3	7.3	5.3	4.0	6.7	7.7	6.7	7.0	6.0	6.0	6.7	7.7	6.4
PIXIE E+	6.0	7.0	6.0	4.5	7.0	7.0	5.3	5.0	6.0	7.3	8.3	6.3	6.3	6.0	7.0	7.0	7.3	7.3	4.7	4.7	6.7	8.0	6.7	6.7	5.7	6.0	6.0	7.7	6.4
R5AU	6.3	7.0	6.7	4.3	7.3	7.0	5.0	5.3	6.3	7.0	8.0	6.0	6.7	5.0	7.3	7.0	7.3	7.3	4.7	4.7	6.7	7.7	6.3	6.7	6.3	5.3	7.0	7.0	6.4
WX3-275	6.0	7.0	7.0	5.0	7.7	5.7	5.0	6.0	5.7	7.0	8.7	5.7	6.3	5.3	7.7	7.0	7.3	7.3	5.7	4.3	7.7	8.0	6.7	6.3	5.3	5.0	6.0	6.7	6.4
TOMAHAWK-E	5.7	7.0	6.7	4.7	7.7	6.3	5.0	4.3	6.0	7.0	8.3	7.0	6.7	5.3	7.3	7.0	6.7	6.7	5.7	4.0	6.7	8.0	6.7	6.3	5.3	6.3	6.0	8.0	6.4
TULSA	6.0	7.0	6.3	4.7	7.0	5.7	5.3	4.7	6.3	6.3	9.0	6.3	6.7	5.0	7.3	7.0	7.0	7.0	4.7	5.0	7.3	7.0	7.0	6.3	6.3	6.0	6.3	7.7	6.4
BONSAI 2000 (BULLET)	6.3	7.0	6.7	5.3	7.0	7.3	4.7	5.7	5.7	7.0	8.3	6.0	6.0	5.3	8.0	7.0	6.7	7.3	4.3	4.0	7.0	7.7	6.3	6.7	5.3	6.3	6.3	7.0	6.4
EMPRESS	6.3	7.0	6.7	4.3	7.3	6.3	5.3	5.0	5.7	7.0	9.0	6.0	6.3	5.3	7.0	7.0	7.0	7.0	5.3	4.0	6.7	8.0	7.0	6.3	5.3	5.7	6.7	7.7	6.4
BANDANA (PST-R5AE)	6.7	7.0	7.0	5.0	7.0	6.7	5.3	5.3	5.7	7.3	8.3	6.0	6.0	5.3	7.7	7.0	7.3	7.0	4.7	3.7	6.7	8.0	6.3	6.3	5.7	5.3	6.0	7.7	6.4
DUSTER	6.0	7.0	7.0	4.7	7.0	7.0	5.0	5.3	6.0	7.3	8.3	6.3	5.7	5.0	7.0	7.0	7.0	7.7	5.0	4.3	7.0	7.3	7.0	6.3	5.7	5.3	6.0	7.7	6.4
OFI-96-32	6.0	7.0	6.7	4.0	7.7	6.7	5.0	4.7	6.0	7.0	9.0	6.0	6.7	5.0	7.0	7.0	6.3	7.0	5.7	4.3	7.7	7.7	6.7	6.3	5.3	6.0	6.0	7.3	6.3
GOOD-EN (KOOS 96-14)	6.3	7.0	6.7	4.5	7.0	6.0	5.3	5.3	6.3	7.0	8.7	6.0	7.0	5.0	7.0	7.0	6.7	7.3	5.3	4.0	6.7	7.3	7.0	6.7	5.7	5.3	6.0	7.3	6.3
JAGUAR 3	7.0	7.0	6.3	4.7	7.0	6.7	5.0	4.3	6.0	7.0	8.7	6.0	6.3	5.3	7.0	7.0	4.7	8.0	5.7	4.3	6.7	7.3	6.7	6.0	5.7	6.7	6.0	7.7	6.3
FALCON II	5.7	7.0	6.7	4.3	6.0	6.7	5.0	6.0	6.3	7.0	9.0	6.3	6.7	4.7	7.0	7.0	7.0	7.0	3.7	3.7	6.7	7.7	6.7	6.7	6.0	6.3	6.0	7.7	6.3
WVPB-1B	6.7	7.0	6.3	5.0	7.0	6.3	5.0	4.0	6.0	7.0	8.0	6.3	6.5	5.0	7.3	7.0	7.3	7.0	5.0	4.3	7.3	7.3	6.7	5.7	5.7	6.3	6.0	6.7	6.3
PSII-TF-10	5.7	7.0	6.3	4.7	6.3	6.7	5.0	4.7	6.0	7.0	8.3	6.3	6.0	5.7	7.0	7.0	7.3	7.0	5.7	3.7	7.0	7.7	6.7	6.3	4.7	5.3	6.7	8.0	6.3

Table 30

9900399

TABLE 25. (CONT'D)

GENETIC COLOR RATINGS OF TALL FESCUE CULTIVARS
1998 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MD1	MI1	MO1	MO3	MS1	NE1	NE2	NJ1	NJ2	NY1	OH1	OK1	SC2	UT1	VA1	VA4	WA1	MEAN
SR 8210	5.3	7.0	7.0	5.3	7.3	6.0	5.0	5.0	6.0	6.7	8.7	6.3	6.3	5.0	7.7	7.0	7.0	7.3	5.0	3.7	7.0	7.3	6.0	6.0	5.7	5.7	6.0	7.0	6.3
EQUINOX (TMI-N91)	6.7	7.0	6.7	3.7	6.3	5.7	5.0	4.7	6.0	7.0	8.0	6.3	6.3	5.3	7.3	7.0	7.0	7.0	5.0	4.3	6.7	7.3	6.3	6.7	6.0	6.0	6.0	7.3	6.2
MARKSMAN	6.3	7.0	7.0	4.7	7.0	6.0	5.0	4.7	6.0	7.0	8.0	6.0	6.7	5.0	7.7	7.0	7.0	7.0	4.0	3.3	7.3	7.3	6.3	6.7	5.7	5.7	6.0	7.3	6.2
EC-101	6.7	7.3	6.0	4.3	6.7	5.7	5.0	4.7	6.0	7.0	8.7	6.0	6.5	4.7	6.7	7.0	7.0	7.3	4.7	4.0	6.7	7.7	7.0	6.7	5.7	5.7	6.0	7.3	6.2
PEDESTAL (PC-AO)	5.3	7.0	6.3	4.7	7.0	7.0	5.3	4.0	5.3	7.0	9.0	6.3	6.3	5.0	6.7	7.0	7.3	7.3	5.0	4.0	7.0	7.3	5.7	6.3	5.7	5.7	6.0	7.7	6.2
ISI-TF9	6.0	7.0	6.3	4.7	7.0	6.0	5.3	4.7	5.7	6.7	9.0	6.3	6.7	5.0	6.7	7.0	7.0	7.3	4.7	3.3	6.7	7.0	6.7	6.3	5.3	6.3	6.0	7.0	6.2
WPEZE (WVPB-1C)	7.0	7.0	6.0	4.3	6.7	6.7	5.3	4.3	6.0	7.0	8.7	6.0	6.7	5.0	7.0	7.0	6.7	7.3	4.7	3.3	6.0	7.7	6.3	6.7	5.3	6.0	6.0	7.0	6.2
ATF-020	5.7	7.0	6.7	4.0	7.0	5.7	5.0	4.7	5.3	6.7	9.0	5.7	6.0	5.3	7.7	7.0	7.0	7.7	4.7	4.0	7.0	7.3	6.7	6.3	5.0	5.3	6.3	7.3	6.2
DP 50-9011	6.0	7.3	6.7	6.0	6.0	5.0	5.0	4.7	6.0	7.0	8.7	6.7	6.0	5.3	7.0	6.7	7.0	7.0	4.7	4.3	6.0	7.7	6.3	6.0	5.3	5.7	6.0	6.7	6.2
CU9502T	6.0	7.0	6.3	4.3	6.7	5.7	5.3	4.3	6.0	6.0	8.7	6.3	6.7	5.0	7.0	7.0	7.3	7.3	4.3	3.7	6.7	7.0	6.0	6.0	6.3	5.7	6.0	7.3	6.1
MUSTANG II	6.3	7.0	6.7	4.0	7.7	6.0	5.0	5.0	6.0	7.0	8.0	6.0	7.0	5.0	6.7	7.0	7.0	7.0	4.0	3.7	7.0	7.0	6.7	6.0	5.0	5.3	6.0	7.0	6.1
REGIMENT	6.3	7.0	6.0	4.0	6.7	7.0	5.3	4.0	6.0	7.0	8.0	6.3	6.0	5.0	7.3	6.7	7.0	7.3	4.3	4.0	7.0	7.3	6.3	6.3	4.7	5.7	6.0	7.3	6.1
RENEGADE	6.0	7.0	7.0	4.0	7.0	7.0	4.7	4.3	6.0	6.3	8.0	6.3	6.7	5.0	6.3	7.0	6.7	7.0	4.0	3.3	7.3	8.0	6.3	6.3	5.0	5.3	6.0	7.7	6.1
ATF-253	6.3	7.0	6.7	3.7	7.0	7.0	4.3	3.3	5.3	6.7	8.7	6.0	5.7	5.3	7.0	7.0	6.7	7.0	5.0	4.3	6.7	7.3	7.0	6.0	4.7	6.3	6.0	7.3	6.1
ATF-188	5.3	7.0	6.3	4.0	7.7	6.3	5.0	3.7	6.0	6.7	7.3	6.3	7.0	5.0	7.0	7.0	6.7	7.7	3.3	4.3	7.0	7.3	6.7	5.7	5.3	5.7	6.0	8.0	6.1
ATF-022	6.3	7.3	7.0	5.7	6.7	6.3	4.3	3.7	5.7	6.7	8.0	6.0	6.3	5.3	7.0	7.0	6.7	6.7	4.0	4.0	6.3	7.3	6.7	7.0	4.7	5.7	6.0	7.0	6.1
ISI-TF11	6.0	7.0	7.0	4.0	7.0	6.3	5.0	4.7	5.7	7.0	9.0	6.0	7.0	5.0	7.0	6.7	6.3	6.0	5.0	2.7	6.7	7.3	5.7	6.7	5.7	5.3	6.3	7.0	6.1
RESERVE (ATF-182)	6.0	6.7	6.0	4.7	6.7	6.0	5.0	4.0	6.0	6.3	8.0	6.0	6.7	5.0	6.7	7.0	6.7	7.0	3.7	4.0	7.0	7.0	6.3	6.3	5.7	6.3	6.7	7.3	6.1
COMSTOCK (SSDE31)	5.7	7.0	6.3	4.0	6.0	6.3	5.3	3.3	5.7	6.7	8.0	6.3	6.7	5.0	7.0	7.0	7.0	7.0	4.3	4.3	6.7	7.0	6.0	6.3	5.3	6.7	6.0	7.7	6.1
PST-523	6.0	7.0	7.0	4.0	7.7	6.3	5.0	4.7	5.7	6.7	7.3	6.0	6.0	5.3	7.0	6.7	6.7	7.3	4.3	3.7	6.7	7.7	6.0	6.0	5.7	5.0	6.0	7.3	6.1
WVPB-1D	5.7	7.0	6.7	4.7	6.3	6.7	4.7	4.7	5.3	7.0	8.3	6.3	6.7	5.3	7.0	7.0	7.3	6.7	4.3	3.7	6.3	7.3	6.0	6.0	4.0	6.3	6.0	6.7	6.1
AXIOM (ATF-192)	5.3	7.0	6.3	5.0	6.3	6.0	5.0	4.3	5.7	6.7	7.3	5.7	6.0	5.3	6.0	6.7	6.7	7.0	4.3	4.0	7.3	7.7	6.0	6.7	6.3	6.0	6.0	7.0	6.1
PSII-TF-9	5.7	7.0	6.0	4.0	7.3	6.3	5.0	3.7	5.7	7.0	8.0	6.0	6.0	5.0	7.3	7.0	6.7	7.3	4.3	3.7	6.7	7.3	6.3	6.0	4.7	5.7	6.0	7.7	6.0
KITTY HAWK S.S.T. (SS45DW)	5.7	7.0	6.3	4.0	6.3	5.3	5.0	4.0	5.3	7.0	8.0	6.3	6.3	5.3	7.3	6.7	7.0	7.3	4.7	3.7	6.3	7.3	6.3	6.0	5.3	5.7	6.0	7.3	6.0
LEPRECHAUN	6.3	7.0	6.0	4.7	7.0	6.3	4.7	4.0	6.0	6.3	7.3	5.7	6.3	5.3	6.7	7.0	6.3	6.7	4.3	3.3	6.7	7.3	6.0	6.0	6.0	5.7	6.3	7.3	6.0
ATF-257	6.3	7.0	6.0	4.0	6.7	6.7	5.3	4.0	5.0	7.0	8.7	5.3	6.0	5.0	6.3	6.7	6.7	6.7	3.7	5.0	7.0	7.3	6.0	6.3	5.0	5.3	6.3	7.0	6.0
SRX 8084	5.3	7.0	6.7	4.0	6.3	6.3	5.0	5.3	5.7	7.0	8.0	6.0	6.7	5.3	7.0	7.0	6.7	6.3	4.3	3.3	6.3	7.0	5.7	5.7	5.0	5.7	6.0	6.3	6.0
BONSAI	5.3	7.3	7.0	4.7	.	6.0	5.0	2.7	6.0	7.0	7.0	5.7	6.7	4.7	7.3	6.7	7.0	7.7	3.7	4.3	6.3	7.0	5.7	6.0	4.3	6.0	6.7	7.0	6.0
JSC-1	5.7	7.0	6.3	4.3	5.7	6.7	4.7	4.3	5.7	6.0	8.0	5.7	6.0	5.0	7.0	7.0	6.7	7.0	4.0	3.3	6.7	7.0	6.3	6.0	4.7	6.0	6.3	7.3	5.9
PRO 8430	5.7	7.0	6.3	4.0	7.0	6.3	5.0	4.0	5.3	7.0	7.3	5.7	6.0	5.0	7.0	6.3	6.3	7.0	3.7	3.0	6.3	7.3	6.0	6.0	6.0	5.0	6.0	7.0	5.9
SHENANDOAH	7.0	7.0	6.3	4.3	6.7	6.3	5.0	3.7	5.7	6.0	7.7	6.0	6.0	4.3	6.7	6.7	6.3	7.0	3.0	3.0	6.3	6.7	6.3	5.7	4.7	5.3	6.0	7.0	5.8
SAFARI	6.0	7.0	6.0	4.3	6.7	6.0	5.3	2.7	6.0	6.7	7.3	6.0	6.3	4.7	7.3	6.7	6.3	7.0	3.3	3.0	6.7	6.7	5.7	5.7	4.3	5.3	6.0	6.7	5.8
DLF-1	6.0	7.0	5.0	4.7	6.3	6.0	4.7	2.3	5.3	7.0	7.0	5.0	6.3	4.7	6.7	6.7	6.7	6.7	3.3	3.3	6.0	7.0	5.7	5.7	4.0	6.3	5.7	6.0	5.6
TITAN 2	5.7	7.0	6.3	4.3	6.7	6.3	4.3	2.7	5.0	6.7	6.7	5.3	6.0	4.7	6.0	7.0	6.0	6.7	3.7	2.7	6.0	7.0	5.0	6.0	4.3	5.0	6.0	6.3	5.5
JTTFC-96	5.7	7.0	5.7	4.0	5.7	5.7	4.7	2.7	5.0	6.0	7.0	6.3	6.0	4.7	5.7	7.0	6.3	6.7	3.0	3.0	6.7	7.0	5.7	6.0	4.3	5.0	6.0	6.3	5.5
AV-1	4.3	7.0	5.0	4.3	5.3	6.3	4.7	3.3	5.0	5.7	7.0	5.0	6.0	4.0	5.3	6.0	5.7	6.3	3.3	3.3	5.7	7.0	5.0	5.7	4.0	6.3	6.0	6.0	5.3
JTTFA-96	4.7	6.3	5.0	4.3	5.7	5.7	4.3	2.0	5.0	5.7	6.0	5.7	5.7	3.0	6.0	6.0	6.0	6.3	2.0	2.7	6.3	6.7	5.7	5.7	4.3	5.3	6.0	6.0	5.1
DP 7952	5.0	7.0	5.0	4.0	5.0	6.0	4.3	2.7	5.3	6.7	6.0	5.3	5.7	4.0	5.3	6.0	6.3	6.0	2.3	2.3	5.0	6.7	5.3	5.3	4.3	5.7	5.0	5.7	5.1
ARID	5.0	7.0	5.0	3.5	5.7	5.7	4.3	1.3	5.0	5.7	6.0	5.3	5.0	3.3	4.7	6.3	5.7	6.0	2.7	2.0	5.3	6.3	5.3	5.7	3.7	6.0	5.7	5.3	4.9
KENTUCKY-31 W/ENDO.	4.0	5.0	5.0	4.0	4.3	6.0	4.0	1.0	3.3	4.0	4.0	4.0	5.0	3.0	4.3	5.0	5.0	5.0	2.0	1.0	5.0	6.0	5.0	5.0	3.7	5.0	4.3	4.3	4.2
LSD VALUE	1.3	0.4	0.6	1.1	1.0	1.1	0.7	1.7	0.7	0.8	0.6	0.8	1.1	0.8	1.1	0.5	1.0	0.9	1.3	1.3	1.0	0.7	0.7	0.9	1.6	1.2	0.6	1.0	0.2
C.V. (%)	12.1	3.3	5.8	14.8	8.5	10.7	8.4	19.8	7.4	7.1	4.5	8.2	10.5	8.8	9.6	4.1	8.5	7.3	15.4	19.5	8.6	5.3	6.7	8.7	16.3	12.6	6.1	8.1	9.6

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

99 AUG 23 PM 3:39
RECEIVED
USDA-AMS-PVPO

Table 32

9900399

23

TABLE 27.

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS 1/
1998 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MI1	MO1	MO3	MS1	NE1	NE2	NJ2	OH1	OK1	SC2	VA1	VA4	WA1	MEAN
GAZELLE	8.0	7.0	6.3	5.7	7.3	6.7	7.0	8.7	6.0	7.0	8.7	6.7	6.0	7.7	6.0	8.7	7.7	6.7	4.0	7.7	6.3	6.3	7.0	2.3	6.7
PICK RT-95	8.3	6.7	6.0	6.0	6.7	6.7	6.7	9.0	5.7	7.0	8.0	7.0	6.3	7.0	6.7	8.0	8.0	7.0	4.3	7.7	6.0	6.7	6.7	2.0	6.7
BAR FA 6D	7.7	6.7	6.0	5.0	6.7	6.7	5.7	8.0	6.0	7.3	8.3	7.0	6.0	6.3	6.0	8.3	6.7	6.0	5.3	7.7	6.3	6.3	7.3	3.0	6.5
REMBRANDT (LTP-4026 E+)	8.7	6.7	5.7	6.0	7.0	5.7	6.7	9.0	5.3	7.0	8.0	6.3	6.0	6.0	6.3	8.0	7.7	6.3	4.3	8.0	6.7	6.0	6.0	2.7	6.5
MASTERPIECE (LTP-SD-TF)	7.0	7.3	5.7	6.0	7.0	7.7	6.3	8.0	5.7	7.0	8.3	6.3	5.7	6.3	5.7	8.0	6.7	5.7	4.7	7.3	6.7	6.0	7.0	2.7	6.4
MB 26	8.0	6.7	6.0	4.7	6.5	6.7	5.7	8.7	6.0	7.0	8.3	6.7	5.7	6.3	6.0	7.7	6.7	5.7	4.3	7.7	7.0	6.3	7.3	2.7	6.4
SCORPION (ZPS-2PTF)	8.0	6.3	6.0	4.7	7.3	6.0	6.0	9.0	5.7	7.0	8.7	6.7	6.3	5.7	5.7	7.7	8.3	6.0	3.7	7.7	6.0	6.0	7.0	2.3	6.4
MILLENNIUM (TMI-RBR)	7.7	6.0	6.0	6.7	6.3	6.7	6.7	8.3	5.7	7.0	9.0	6.7	6.0	5.7	6.3	8.0	6.7	5.7	3.7	7.3	6.3	6.3	6.7	2.0	6.4
BAR FA 6LV	7.7	7.0	6.0	4.0	7.3	7.3	5.7	7.0	5.7	7.0	8.3	6.5	6.0	5.7	5.7	8.0	7.7	5.7	4.7	8.0	6.3	5.7	7.7	2.7	6.4
CU9502T	6.7	6.3	6.3	5.3	6.7	7.0	5.3	6.7	6.0	6.7	9.0	6.7	7.0	6.3	6.0	7.7	7.7	5.7	3.7	7.7	6.0	6.3	6.7	2.7	6.3
COYOTE	8.3	6.3	6.0	6.5	6.7	6.3	6.0	8.3	5.7	7.0	8.0	6.7	5.7	6.3	6.0	7.0	7.0	5.3	4.0	7.7	6.0	6.3	6.3	2.3	6.3
BULLDAWG (PICK GA-96)	8.0	6.3	6.0	5.3	7.3	6.0	5.7	6.7	6.0	6.7	8.3	7.0	6.0	6.7	5.7	8.0	7.0	5.7	3.0	7.7	6.0	6.7	7.3	2.7	6.3
JAGUAR 3	7.0	6.0	6.0	6.7	6.7	6.7	5.7	8.3	5.7	7.3	9.0	6.3	6.0	6.3	5.7	7.3	7.3	5.3	3.3	7.3	6.0	7.0	6.3	2.3	6.3
BAR FA6 US1	7.7	6.3	6.0	5.0	7.3	6.3	5.7	6.0	5.7	6.7	8.3	7.0	6.0	7.0	6.7	8.3	7.7	5.0	3.0	8.0	6.3	6.0	7.0	2.3	6.3
BAR FA6D USA	7.3	6.3	6.0	4.3	7.0	6.7	5.3	6.7	6.0	6.7	8.7	6.7	6.3	7.0	6.3	8.0	7.0	5.3	4.0	7.7	6.3	6.3	6.7	2.3	6.3
ATF-196	8.0	6.0	6.3	4.0	7.3	7.3	5.7	7.3	5.0	6.3	6.7	6.3	6.0	7.0	6.3	8.0	8.0	6.0	4.0	7.3	6.3	5.7	7.0	2.7	6.3
ZPS-5LZ	7.7	6.0	6.0	5.0	7.0	6.3	6.0	7.3	5.3	7.0	8.3	7.3	5.7	7.3	6.3	7.3	7.0	4.7	3.7	7.0	6.3	6.3	7.0	2.3	6.3
PICK FA 20-92	6.7	6.0	6.0	4.5	7.0	6.0	6.0	8.0	6.0	7.0	8.0	6.7	5.7	5.7	6.3	8.3	6.3	6.0	3.3	8.0	7.0	6.0	7.0	2.7	6.3
PLANTATION (PENNINGTON-1901)	7.7	6.3	6.0	6.3	7.0	5.3	5.7	7.0	5.3	6.7	8.0	6.0	6.0	6.0	6.7	8.0	7.7	5.7	3.7	7.7	6.3	6.0	6.7	2.3	6.3
OFI-931	7.0	6.0	6.0	6.0	7.0	6.3	5.7	7.7	5.3	7.0	9.0	6.3	5.7	6.7	5.7	7.3	7.0	5.0	3.3	7.7	6.7	6.3	7.0	2.0	6.2
SRX 8500	7.7	6.3	6.0	6.0	6.7	5.7	5.7	7.7	6.0	6.7	8.0	7.0	5.3	6.7	6.0	7.3	7.3	5.7	3.0	8.0	6.0	6.0	6.7	2.3	6.2
ANTHEM II (TMI-FMN)	7.3	7.0	6.3	6.0	6.5	6.7	6.3	8.3	5.0	6.7	7.0	6.3	6.0	5.7	5.7	7.0	5.7	6.3	3.7	7.7	6.3	6.3	7.0	2.7	6.2
BAR FA6 US3	7.7	6.7	6.0	4.3	7.0	6.0	5.7	6.3	5.7	6.3	8.7	6.7	6.3	6.3	6.0	8.0	7.0	5.3	3.7	8.0	6.3	5.7	6.3	3.3	6.2
PICK FA 15-92	7.3	6.3	6.0	4.7	7.3	6.3	6.0	8.0	5.0	6.7	8.0	6.3	6.3	7.0	6.0	7.7	6.0	5.3	3.3	7.7	6.7	6.3	7.0	2.0	6.2
PICK FA XK-95	7.7	7.0	6.0	5.0	6.3	5.3	5.7	6.7	6.0	6.7	8.0	6.7	5.7	6.7	6.3	7.0	6.3	6.3	3.3	8.0	6.7	6.0	7.0	3.0	6.2
BONSAI 2000 (BULLET)	6.3	6.7	6.3	5.3	6.0	5.7	6.0	8.0	6.0	7.0	8.3	6.3	6.7	5.7	5.3	7.7	6.7	6.3	3.3	7.7	6.3	6.0	7.0	2.3	6.2
RED COAT (ATF-038)	7.0	6.7	6.0	6.3	6.7	5.3	5.7	8.0	5.7	6.3	8.3	7.3	6.0	5.7	6.0	7.3	7.3	4.7	3.7	7.0	6.7	6.3	6.3	2.3	6.2
ATF-188	6.3	6.3	5.7	6.0	6.7	6.0	5.7	6.7	5.7	6.3	7.7	6.0	6.0	6.0	6.3	7.7	7.7	6.0	4.7	8.0	6.3	5.7	6.7	2.7	6.2
BRANDY (J-101)	7.7	6.0	6.0	5.7	6.7	7.0	5.3	7.7	5.3	6.3	8.0	6.7	6.3	5.7	6.3	7.3	6.7	5.0	3.3	8.0	6.7	6.0	7.0	2.0	6.2
SHORTSTOP II	7.0	7.0	6.0	4.7	6.5	7.0	5.7	5.7	5.3	6.3	8.0	6.3	6.7	6.7	5.7	8.0	6.7	5.3	3.7	7.7	6.7	6.3	7.3	2.3	6.2
MB 212	7.0	6.3	5.7	5.3	7.0	6.3	5.7	8.7	5.3	6.7	8.0	6.7	6.3	6.0	5.7	7.0	6.7	5.3	3.3	7.7	6.3	6.3	6.7	2.3	6.2
SUNPRO	8.3	6.3	6.0	4.3	6.3	6.0	6.0	7.0	5.7	6.0	8.7	6.3	6.0	6.0	5.7	8.0	7.7	5.3	3.3	8.0	6.0	5.7	7.0	2.7	6.2
CROSSFIRE II	7.0	6.3	6.3	6.0	7.7	5.3	6.3	8.3	5.0	6.3	7.7	6.3	6.0	6.0	5.7	7.3	7.0	6.0	3.0	7.3	6.0	6.3	6.3	2.3	6.2
RESERVE (ATF-182)	7.3	6.7	6.0	6.3	6.7	6.7	5.7	7.7	5.3	6.7	7.3	6.7	5.3	5.7	6.0	7.0	7.7	5.3	3.3	7.3	6.7	5.7	6.3	2.7	6.2
EMPRESS	7.0	6.7	5.3	5.7	7.3	5.7	6.3	6.7	5.7	7.0	8.0	7.0	5.7	6.7	5.7	7.7	6.3	5.3	4.0	7.7	6.7	5.7	6.0	2.0	6.2
REBEL SENTRY (AA-A91)	6.3	6.0	5.3	6.3	6.3	6.3	5.7	8.3	5.3	6.3	7.0	7.0	6.7	6.7	6.3	8.0	6.7	5.0	4.3	7.0	6.7	5.3	6.5	2.0	6.1
SR 8210	6.3	6.0	6.0	5.7	6.7	6.0	6.0	6.7	6.0	7.0	7.3	7.0	6.0	7.3	6.0	7.0	7.0	5.7	3.7	7.3	6.0	5.7	6.7	2.0	6.1
PST-523	7.0	6.7	6.0	6.0	6.7	6.3	6.3	7.0	6.0	7.0	8.3	6.7	5.3	6.3	6.0	7.0	6.7	5.3	3.0	8.0	6.3	5.7	5.7	1.7	6.1
ARID 3 (J-98)	7.7	6.3	5.7	5.0	6.3	5.7	5.7	7.3	5.3	6.3	8.0	6.0	5.7	6.7	6.0	7.3	6.3	5.3	3.7	7.7	6.3	6.7	7.3	2.3	6.1
OLYMPIC GOLD (PST-5E5)	6.7	5.7	6.0	6.7	7.3	6.7	6.0	8.3	5.0	6.7	7.7	6.7	5.3	5.7	6.3	6.3	7.0	5.7	2.7	7.7	6.3	6.0	6.0	2.3	6.1
MUSTANG II	7.3	6.0	6.0	5.3	6.7	6.3	6.3	8.3	5.0	6.7	7.7	6.0	5.7	5.3	6.3	7.7	7.0	5.0	3.7	8.0	6.3	5.7	6.7	1.7	6.1
AZTEC II (TMI-AZ)	7.3	6.7	6.0	5.7	6.0	6.3	6.0	7.3	5.0	7.0	7.7	6.3	6.0	5.7	5.3	7.0	6.3	6.0	3.7	7.7	6.7	5.7	6.7	2.3	6.1
REGIMENT	7.0	5.7	6.0	6.3	5.7	6.3	6.0	8.0	5.7	6.7	7.7	7.3	6.0	5.7	5.3	6.7	6.7	5.7	3.0	7.0	6.7	5.7	7.0	2.7	6.1
SHENANDOAH II (WRS2)	6.3	6.0	6.0	6.0	7.0	6.0	6.3	8.7	5.3	6.7	7.3	6.7	5.0	6.0	6.0	7.3	6.7	5.3	3.0	7.7	6.0	5.3	7.0	2.7	6.1

'99 AUG 23 PM2:39
USDA-AMS-PVPO
RECEIVED
99003399

Bonsai 2000, Turf Merchants, Inc.

TABLE 27. (CONT'D)

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS
1998 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MI1	MO1	MO3	MS1	NE1	NE2	NJ2	OH1	OK1	SC2	VA1	VA4	WA1	MEAN
OFI-FWY	7.3	6.3	6.0	5.7	6.3	5.7	5.3	6.7	5.3	6.3	7.7	6.7	5.7	6.0	6.3	7.7	7.3	5.3	3.0	7.0	6.0	6.7	7.0	2.7	6.1
CORONADO	6.7	6.3	5.7	5.7	6.7	7.0	6.3	7.7	5.0	7.0	7.0	6.7	5.3	6.0	6.0	7.0	6.3	5.3	3.3	7.3	6.3	6.3	6.3	2.3	6.1
OFI-951	7.7	5.7	6.0	5.3	6.0	6.3	6.0	8.3	5.3	6.7	7.0	6.3	5.7	6.0	5.3	7.7	6.7	5.3	3.7	7.3	6.3	5.7	7.0	2.3	6.1
TULSA	7.0	6.0	6.3	5.0	7.0	6.0	6.3	7.0	5.3	6.7	8.0	6.0	5.7	6.3	6.0	7.0	6.3	5.3	3.7	7.3	6.7	6.0	6.3	2.3	6.1
BAR FA6 US2U	7.3	6.3	5.3	5.3	7.0	7.0	6.3	7.3	5.7	7.0	7.7	6.3	6.0	5.7	6.0	7.0	5.0	4.7	2.7	7.7	6.3	5.7	7.0	2.7	6.0
OFI-96-31	6.3	6.0	6.0	5.7	6.0	6.0	6.0	7.3	5.7	7.0	7.7	6.7	5.3	6.3	5.7	7.3	6.7	5.0	3.0	7.3	6.3	6.3	7.0	2.0	6.0
WATCHDOG (PICK FA B-93)	7.0	6.3	6.0	5.0	6.5	5.7	5.7	8.0	6.0	6.7	7.7	5.7	5.7	6.0	6.0	8.0	6.7	5.3	3.7	7.3	6.0	5.3	6.0	2.3	6.0
ARABIA (J-5)	6.3	6.7	5.7	5.0	6.3	5.7	5.3	8.3	5.3	6.3	8.0	6.7	5.7	6.0	6.3	7.3	6.3	4.7	3.3	7.7	6.7	5.3	7.3	2.0	6.0
COCHISE II	7.3	6.0	6.0	5.0	7.0	6.0	5.7	7.0	5.0	6.3	7.0	6.7	6.0	6.0	6.7	7.0	5.0	5.3	4.0	7.7	6.0	6.0	7.0	2.7	6.0
MB 29	7.0	6.0	5.3	5.7	7.0	5.0	6.0	8.0	5.0	7.0	8.0	6.3	5.7	5.7	6.0	7.3	6.7	4.7	2.7	7.3	6.7	5.7	6.7	2.7	6.0
PICK FA UT-93	7.0	6.0	5.7	4.3	6.0	7.3	5.0	5.7	5.7	6.7	7.3	5.3	6.0	7.3	6.0	8.0	6.3	5.3	4.0	8.0	6.3	5.3	7.0	2.0	6.0
WOLFPACK (PST-R5TK)	6.3	6.3	6.0	6.0	6.7	5.7	6.0	7.7	5.0	6.0	8.7	6.3	5.7	5.0	6.0	7.0	7.0	5.3	2.7	8.0	6.3	6.0	5.7	2.3	6.0
DUSTER	6.7	6.0	5.7	6.0	6.3	5.3	5.7	8.0	5.0	6.3	7.3	6.3	6.3	5.0	6.0	7.0	7.0	5.3	3.3	8.0	6.3	5.3	6.7	2.7	6.0
ATF-020	6.7	6.3	6.0	5.3	6.7	5.3	5.3	8.3	5.0	6.0	6.3	6.3	6.3	6.0	5.7	8.0	7.0	5.3	3.0	7.3	6.7	5.3	6.7	2.3	6.0
ALAMO E	6.7	6.3	5.7	5.7	7.0	6.0	6.0	7.7	5.0	6.3	7.0	6.3	5.7	5.0	6.0	7.7	7.0	5.3	3.3	7.0	6.3	5.0	6.7	2.7	6.0
EA 41	6.3	6.7	5.7	4.7	6.0	7.0	5.7	6.3	5.3	6.7	7.3	6.3	5.7	6.3	6.0	6.7	5.7	5.7	4.3	7.0	6.0	5.7	7.3	2.7	6.0
PICK FA 6-91	7.0	6.0	5.3	3.5	6.7	5.3	5.7	7.0	5.3	6.7	7.0	6.3	6.7	5.7	6.0	7.7	6.3	5.3	3.7	7.7	6.7	6.0	6.3	3.0	6.0
APACHE II	7.7	6.0	6.3	6.0	7.0	5.7	5.3	7.7	5.0	6.0	7.3	6.0	5.7	4.7	5.7	7.3	6.7	5.3	3.3	7.3	6.3	5.0	7.0	2.3	5.9
SOUTHERN CHOICE	6.3	6.7	6.0	5.0	6.7	7.0	5.0	8.0	5.0	6.3	7.0	6.7	6.0	5.0	6.0	7.3	6.7	5.0	3.3	7.7	6.0	5.7	6.3	2.0	5.9
DP 50-9011	6.7	6.7	6.3	3.7	7.0	6.0	5.0	7.0	5.3	6.7	7.0	6.0	6.0	7.7	5.7	7.0	6.3	4.7	3.7	8.0	6.0	5.7	6.3	2.0	5.9
MB 211	6.0	6.3	5.7	5.7	6.3	6.0	5.0	8.3	5.3	6.3	8.0	6.7	6.0	5.3	6.0	6.7	6.7	4.7	3.0	7.0	6.3	6.0	6.7	2.3	5.9
TOMAHAWK-E	6.7	5.7	5.7	6.7	6.3	6.0	6.3	7.0	5.0	7.0	7.0	6.7	4.7	6.0	6.3	6.7	6.7	4.3	3.0	7.3	6.0	6.0	7.0	2.3	5.9
WX3-275	6.3	5.7	6.0	5.3	7.0	6.7	6.7	6.0	5.3	6.0	7.3	6.7	5.7	5.7	5.7	7.0	6.7	5.3	3.3	7.0	6.0	6.0	7.0	2.0	5.9
ATF-257	6.7	6.3	6.3	5.7	6.3	4.7	5.7	8.0	5.0	7.0	8.0	6.0	6.3	5.7	6.0	7.0	6.0	5.7	3.3	7.7	6.3	5.3	5.7	1.7	5.9
BANDANA (PST-R5AE)	5.7	7.0	5.7	6.0	6.7	6.7	5.7	8.0	5.0	7.0	7.3	6.7	5.3	6.0	6.0	6.3	5.3	4.7	3.0	7.7	6.0	6.0	6.3	2.0	5.9
PICK FA N-93	6.0	6.3	6.0	5.0	6.0	5.0	6.0	7.0	5.7	6.3	7.7	6.3	5.7	6.3	5.7	7.0	7.7	5.3	3.0	7.7	6.3	5.0	6.3	2.3	5.9
PST-5M5	6.7	6.0	6.0	5.7	7.0	5.3	6.0	9.0	4.7	6.7	7.0	6.0	5.3	5.7	5.7	7.7	7.0	4.3	3.7	7.0	6.0	5.3	6.3	1.7	5.9
R5AU	6.7	6.0	6.0	5.3	7.0	6.3	6.3	8.7	5.0	6.7	7.3	6.7	6.0	5.7	5.3	6.0	5.7	5.0	3.0	7.3	6.3	5.7	6.0	1.7	5.9
CU9501T	6.3	6.0	6.0	5.0	6.7	5.7	5.7	8.0	5.3	6.0	7.3	6.0	5.3	5.3	5.7	8.0	7.0	5.0	3.0	7.3	6.7	5.7	6.3	2.0	5.9
TAR HEEL	6.7	6.0	6.0	5.3	6.7	6.3	5.3	7.7	5.0	6.7	7.3	5.7	4.7	5.0	6.3	7.0	6.7	6.0	3.0	7.3	6.3	5.3	6.7	2.0	5.9
PRO 8430	6.3	5.7	6.0	5.7	7.0	6.0	5.7	8.0	5.3	6.7	7.7	6.0	5.7	5.3	5.7	7.0	6.0	5.0	3.3	7.7	6.0	5.0	6.0	2.0	5.9
VELOCITY (AA-983)	6.0	6.0	6.0	4.7	6.3	6.3	5.7	7.3	4.7	7.0	7.0	6.7	5.0	6.0	6.0	8.0	7.3	4.7	2.7	7.0	6.7	5.7	6.0	2.0	5.9
ATF-022	7.0	6.0	5.3	5.0	7.0	5.3	5.3	6.7	5.0	6.7	7.3	6.7	6.0	5.7	6.3	7.7	7.3	4.0	3.0	7.0	6.3	5.7	6.3	2.0	5.9
MB 213	6.7	6.0	5.7	5.3	6.7	5.0	5.0	8.3	4.7	7.0	8.0	5.7	6.3	6.0	6.0	7.3	6.0	4.7	3.0	7.3	6.3	6.0	5.7	2.0	5.9
CORONADO GOLD (PST-5RT)	6.0	6.0	6.0	5.7	7.0	6.0	5.7	6.7	5.3	7.0	7.0	6.3	6.0	5.3	5.3	6.7	5.7	5.0	3.0	7.0	6.0	6.0	7.0	2.7	5.8
PST-5TO	6.7	6.7	5.7	4.7	6.7	6.0	5.3	7.0	5.0	7.0	8.0	6.3	5.0	6.3	5.7	6.7	6.3	5.7	3.0	7.0	6.3	5.7	6.3	1.3	5.8
MB 215	6.3	6.0	5.7	5.0	6.3	6.3	6.0	7.3	4.7	6.3	7.3	6.3	5.3	5.7	6.0	7.3	6.0	4.7	3.3	7.3	6.3	6.0	6.3	2.3	5.8
ATF-253	6.7	6.0	6.0	5.3	6.3	6.7	5.3	7.7	5.0	6.3	7.0	5.3	5.7	5.3	5.3	7.0	6.7	5.7	3.3	7.3	6.3	5.3	6.0	2.3	5.8
REBEL 2000 (AA-989)	6.0	6.0	6.0	5.0	6.3	5.3	5.7	6.3	5.0	6.3	7.0	6.7	5.7	5.7	6.7	7.7	5.7	4.0	4.3	7.0	7.0	6.0	6.0	2.3	5.8
SHENANDOAH	6.3	6.3	5.7	6.0	5.7	6.3	5.3	6.7	5.0	7.0	7.0	6.7	6.0	5.3	5.7	7.0	6.0	4.7	3.3	7.3	6.0	5.0	6.3	2.3	5.8
MB 214	6.3	6.7	6.0	4.0	6.0	6.7	5.0	8.3	5.0	6.7	7.3	6.0	6.3	5.3	6.0	7.3	5.7	4.0	3.3	7.0	6.3	5.3	6.3	2.3	5.8
ARID 2 (J-3)	6.3	5.7	5.3	4.3	6.3	5.7	5.3	8.0	4.7	6.3	7.3	6.0	6.7	5.7	5.3	7.0	6.3	5.0	3.7	7.0	6.3	6.0	6.7	2.3	5.8
BAR FA6 US6F	6.7	6.0	6.0	5.3	6.0	5.7	5.7	7.7	5.0	7.0	7.7	6.0	5.7	6.0	5.3	6.7	5.3	4.7	3.3	7.0	6.3	5.3	6.7	2.3	5.8
ISI-TF9	6.0	6.0	5.7	6.3	6.3	6.7	5.0	8.0	5.0	7.0	7.0	6.3	5.0	5.3	5.7	6.3	6.0	5.0	3.3	7.3	6.0	5.3	6.0	2.0	5.8
PEDESTAL (PC-AO)	5.7	5.7	6.0	6.3	6.3	6.0	5.3	6.7	5.0	6.7	8.3	6.0	6.0	5.0	5.3	6.7	7.0	4.3	2.7	7.7	6.0	5.3	6.3	2.3	5.8

Table 31
9900399

25

Bonsai 2000, Turf Merchants, Inc.

TABLE 27. (CONT'D)

LEAF TEXTURE RATINGS OF TALL FESCUE CULTIVARS
1998 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE

NAME	AR1	CA1	CA3	DE1	GA1	IA1	IL1	IL2	IN1	KS2	KY1	MI1	MO1	MO3	MS1	NE1	NE2	NJ2	OH1	OK1	SC2	VA1	VA4	WA1	MEAN
PIXIE E+	6.7	6.0	5.7	6.0	6.3	6.0	5.3	8.3	5.3	6.0	7.0	5.7	5.3	5.3	6.0	7.3	6.0	4.3	3.0	7.0	6.7	4.7	6.0	2.7	5.8
MB 216	6.7	5.7	5.0	5.3	7.0	5.7	5.3	7.7	4.7	6.0	7.0	7.0	5.0	6.3	6.0	7.0	6.7	3.3	3.0	7.0	6.7	5.7	6.3	1.7	5.7
BRAVO (RG-93)	6.7	5.7	5.7	5.7	6.7	5.7	5.0	7.7	5.0	6.3	7.0	7.0	6.0	5.7	5.7	6.0	5.3	4.3	3.0	7.0	6.0	5.3	6.7	2.3	5.7
SAFARI	5.7	6.3	6.0	7.3	6.0	5.7	6.0	7.7	5.0	6.7	7.3	6.3	5.7	4.7	5.7	6.3	5.3	5.0	3.0	7.3	5.3	5.7	6.3	1.0	5.7
KITTY HAWK S.S.T. (SS45DW)	6.3	6.3	5.7	6.7	6.7	6.0	5.7	7.0	5.0	7.3	7.3	6.0	5.3	5.3	6.0	6.0	4.7	4.7	3.0	7.0	6.0	5.0	6.0	2.0	5.7
ISI-TF11	6.3	5.7	5.7	6.3	6.3	5.3	5.3	7.3	4.7	6.3	8.3	6.0	5.3	5.7	6.0	6.0	5.3	5.7	3.0	7.3	6.3	4.7	6.3	1.3	5.7
SRX 8084	6.0	6.0	5.7	5.0	6.0	6.0	5.3	7.3	4.7	6.3	7.3	6.3	5.0	5.3	5.7	7.0	5.7	5.3	2.7	7.0	6.0	6.0	6.7	2.3	5.7
CHAPEL HILL (TA-7)	6.0	6.0	6.0	6.3	6.7	5.3	5.3	7.0	5.0	6.3	8.3	6.0	5.3	5.3	5.7	7.3	5.3	4.0	3.0	7.0	6.0	5.3	5.7	2.3	5.7
MB 210	5.7	6.0	5.7	5.0	6.7	6.3	5.3	7.0	5.3	6.3	7.7	6.0	5.3	5.0	6.0	6.3	6.3	4.0	3.3	7.0	6.7	5.0	7.0	1.7	5.7
TWILIGHT II (TMI-TW)	6.0	6.3	5.7	5.7	6.3	6.0	5.3	7.3	5.0	6.3	7.3	5.7	5.7	5.3	5.7	6.3	5.3	4.7	2.7	6.7	6.7	6.0	6.3	2.0	5.7
WVPB-1B	6.0	5.3	6.0	5.7	6.3	6.3	5.0	7.0	4.7	7.0	6.7	6.0	5.7	5.7	6.0	6.7	6.3	4.0	3.0	7.0	6.3	5.3	6.3	2.0	5.7
TITAN 2	5.3	5.7	5.0	6.3	6.7	5.3	5.7	7.3	4.3	6.3	7.7	5.7	6.0	5.0	5.7	7.0	5.3	5.7	3.7	7.0	6.0	5.0	6.3	2.0	5.7
RENEGADE	6.0	5.7	5.7	5.3	6.0	6.0	4.7	8.3	5.0	6.7	7.0	7.0	5.7	4.3	5.3	7.0	5.7	4.0	3.3	7.0	6.0	5.0	6.7	2.0	5.6
FALCON II	6.7	6.3	5.3	6.0	6.3	5.0	5.0	7.0	5.0	6.7	6.7	6.0	6.0	5.0	6.0	6.7	5.3	4.3	3.0	7.3	6.0	5.7	6.0	2.0	5.6
BONSAI	6.0	6.0	6.0	6.7	.	5.3	5.0	7.0	4.7	6.7	7.0	5.7	5.7	5.3	5.0	7.3	5.7	4.7	3.3	7.0	6.0	5.7	6.0	2.0	5.6
ISI-TF10	6.7	6.0	6.0	6.0	6.0	5.7	4.7	7.3	5.0	6.3	7.3	6.0	5.0	5.3	6.0	6.0	5.7	3.7	3.3	7.3	6.0	5.3	6.3	2.0	5.6
EC-101	6.0	5.7	5.7	5.7	6.0	5.3	5.0	6.7	5.0	6.3	7.3	7.0	5.3	5.7	5.7	6.3	6.7	4.3	3.3	6.7	6.0	5.0	6.0	2.0	5.6
GOOD-EN (KOOS 96-14)	6.3	6.0	5.3	5.5	6.3	5.7	5.0	6.0	4.3	6.7	6.3	6.7	5.3	5.0	6.0	7.0	6.0	4.7	3.7	7.0	6.0	5.7	6.3	1.7	5.6
MB 28	6.3	5.3	4.7	5.5	6.7	6.7	5.0	8.0	4.7	6.3	6.7	6.0	5.3	5.0	5.7	7.0	5.3	4.3	3.0	6.7	7.0	5.0	6.3	1.7	5.6
MARKSMAN	7.0	6.3	4.7	6.0	6.0	5.0	5.0	7.7	4.7	6.3	7.7	6.0	4.7	4.7	5.0	7.0	5.7	4.7	2.7	7.0	6.3	6.0	6.3	1.7	5.6
GENESIS	6.0	5.7	5.0	5.7	6.3	6.0	5.0	6.3	5.0	6.7	7.3	.	5.3	5.0	5.7	6.3	6.3	4.0	3.0	7.0	6.3	6.0	6.3	2.0	5.6
OFI-96-32	5.3	6.0	6.0	5.0	6.0	6.3	5.7	7.3	5.0	6.3	6.7	5.7	5.3	5.0	5.3	6.3	6.3	4.0	2.7	7.0	6.7	5.7	6.0	2.0	5.6
FINELAWN PETITE	5.7	6.3	5.7	6.0	6.0	5.7	5.0	7.7	5.0	6.3	6.7	5.7	4.7	5.3	5.7	6.7	6.3	3.7	3.3	7.0	6.0	5.3	6.0	1.3	5.5
WVPB-1D	7.3	5.7	5.0	6.3	6.3	6.0	5.0	6.0	4.3	6.3	6.7	6.3	5.7	4.3	6.0	6.7	6.0	4.3	3.0	7.0	6.0	5.3	5.3	2.0	5.5
PSII-TF-10	6.0	5.3	4.7	5.7	6.3	6.0	5.3	7.3	4.7	6.7	7.0	6.0	5.0	4.3	5.7	6.7	6.0	4.3	3.0	7.0	6.0	5.3	6.3	1.7	5.5
EQUINOX (TMI-N91)	5.0	6.3	5.7	7.0	6.0	6.0	6.0	7.0	4.0	6.7	6.3	6.0	4.7	5.0	5.0	6.3	4.3	4.3	3.3	7.0	6.3	6.0	6.0	1.7	5.5
AXIOM (ATF-192)	6.7	6.0	6.0	5.7	6.3	5.0	6.0	6.0	5.0	6.0	6.3	6.0	6.0	4.0	6.0	5.3	5.3	5.0	3.0	6.7	6.3	5.3	5.7	2.0	5.5
COMSTOCK (SSDE31)	6.0	6.0	5.0	6.0	6.3	6.0	5.3	5.7	4.7	6.3	8.0	6.0	4.7	5.0	5.3	6.3	5.3	4.3	3.0	7.3	6.0	5.0	6.3	1.7	5.5
LEPRECHAUN	5.7	5.7	5.3	5.7	6.7	6.3	4.7	7.0	5.0	6.3	6.7	5.7	5.3	5.0	5.7	6.3	5.0	4.0	2.7	7.3	6.7	5.3	5.3	2.0	5.5
JTTFA-96	6.3	5.7	6.0	5.0	5.7	5.7	5.0	5.3	5.0	6.7	8.0	5.7	3.7	4.7	5.7	5.7	5.3	5.3	3.7	7.7	5.3	5.3	6.7	2.0	5.5
JSC-1	4.7	5.3	5.0	5.0	5.7	6.3	5.3	6.0	4.3	6.0	7.3	6.3	5.3	5.3	5.7	6.7	6.0	4.3	3.0	7.0	5.7	6.3	6.3	2.0	5.5
WPEZE (WVPB-1C)	5.3	5.7	5.0	6.0	6.7	6.7	4.7	6.7	4.3	5.7	6.7	6.0	5.3	4.7	5.7	6.3	6.3	4.3	3.0	7.0	6.0	5.0	6.7	1.3	5.5
DLF-1	5.3	6.0	6.0	6.0	6.0	6.0	4.7	5.7	4.3	7.0	6.7	5.7	5.7	5.3	6.0	6.3	5.0	3.7	3.0	6.7	6.3	6.3	5.3	1.7	5.4
LION	5.7	5.7	5.7	5.5	.	6.0	5.3	8.3	3.7	6.0	7.0	6.0	5.3	4.7	6.0	6.7	5.3	4.0	3.0	6.7	6.0	5.3	5.3	1.3	5.4
PSII-TF-9	5.3	5.3	5.3	6.3	6.7	5.0	4.7	7.3	5.0	5.7	6.7	6.0	4.0	4.3	5.7	6.3	6.3	4.3	3.0	7.0	6.0	4.7	6.3	1.7	5.4
JTTFC-96	5.0	6.0	5.0	6.5	5.7	6.3	5.3	6.7	4.7	6.3	7.0	6.0	4.7	4.0	6.3	5.0	5.7	4.3	3.0	7.0	6.0	4.7	5.3	1.0	5.3
ARID	5.3	5.3	5.7	7.5	5.3	4.3	5.0	5.3	4.7	6.0	6.0	5.7	5.7	4.0	5.7	5.7	4.3	2.7	3.0	7.3	5.7	4.7	5.7	1.3	5.1
DP 7952	5.0	6.0	4.7	6.3	6.0	5.0	4.7	5.3	4.7	5.7	5.7	4.3	5.0	3.3	5.3	5.7	4.3	4.7	3.3	6.0	5.0	4.3	5.7	1.7	4.9
AV-1	4.7	5.7	4.3	5.3	5.3	5.7	4.7	5.0	3.7	6.7	5.0	6.3	4.7	3.7	5.0	5.7	4.7	3.7	3.0	6.7	6.0	5.3	5.3	1.0	4.9
KENTUCKY-31 W/ENDO.	3.0	3.0	4.0	6.3	4.0	4.0	3.0	4.0	2.3	4.0	4.0	4.0	3.7	2.0	4.0	2.7	2.0	1.3	2.0	6.0	5.0	3.3	3.0	1.0	3.4
LSD VALUE	1.4	0.9	0.7	2.0	1.0	1.5	1.2	2.0	0.8	0.8	1.0	1.1	1.1	1.4	0.9	1.3	1.3	1.1	1.0	0.7	0.7	1.1	0.9	0.8	0.2
C.V. (%)	13.0	9.2	8.0	21.4	9.2	15.7	13.6	17.1	9.2	7.5	8.1	10.4	11.9	15.3	9.3	11.3	12.8	14.2	19.1	6.2	7.4	11.7	8.8	22.5	12.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

'99 AUG 23 PM2:39
USDA-AMS-PVPO
RECEIVED

Table 31

9900399

Bonsai 2000, Turf Merchants, Inc.

TABLE 34. WINTER COLOR RATINGS OF TALL FESCUE CULTIVARS 1/
1998 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	OK1
JTTFA-96	5.3
ARID	4.3
AV-1	4.3
DP 7952	4.3
RESERVE (ATF-182)	4.3
BONSAI 2000 (BULLET)	4.0
CROSSFIRE II	4.0
FALCON II	4.0
FINELAWN PETITE	4.0
PST-523	4.0
RED COAT (ATF-038)	4.0
REGIMENT	4.0
WVPB-1B	4.0
ANTHEM II (TMI-FMN)	3.7
ATF-020	3.7
ATF-257	3.7
AXIOM (ATF-192)	3.7
AZTEC II (TMI-AZ)	3.7
BANDANA (PST-R5AE)	3.7
BRAVO (RG-93)	3.7
CHAPEL HILL (TA-7)	3.7
COMSTOCK (SSDE31)	3.7
CORONADO	3.7
CU9501T	3.7
DP 50-9011	3.7
EC-101	3.7
EQUINOX (TMI-N91)	3.7
GENESIS	3.7
JAGUAR 3	3.7
JSC-1	3.7
JTTFC-96	3.7
KENTUCKY-31 W/ENDO.	3.7
MB 26	3.7
MB 29	3.7
MILLENNIUM (TMI-RBR)	3.7
OFI-931	3.7
PICK FA XK-95	3.7
PLANTATION (PENNINGTON-1901)	3.7
PRO 8430	3.7
REBEL SENTRY (AA-A91)	3.7
SAFARI	3.7
SHENANDOAH II (WRS2)	3.7
TAR HEEL	3.7
TITAN 2	3.7

NAME	OK1
TULSA	3.7
TWILIGHT II (TMI-TW)	3.7
APACHE II	3.3
ARID 2 (J-3)	3.3
ATF-188	3.3
ATF-253	3.3
BAR FA 6LV	3.3
BAR FA6 US1	3.3
BAR FA6D USA	3.3
COCHISE II	3.3
CORONADO GOLD (PST-5RT)	3.3
COYOTE	3.3
CU9502T	3.3
DLF-1	3.3
ISI-TF11	3.3
MARKSMAN	3.3
MASTERPIECE (LTP-SD-TF)	3.3
MB 211	3.3
MB 212	3.3
MB 216	3.3
MUSTANG II	3.3
OFI-951	3.3
OFI-96-31	3.3
OFI-96-32	3.3
OFI-FWY	3.3
OLYMPIC GOLD (PST-5E5)	3.3
PEDESTAL (PC-AO)	3.3
PICK FA 20-92	3.3
PIXIE E+	3.3
PST-5M5	3.3
PST-5TO	3.3
REMBRANDT (LTP-4026 E+)	3.3
RENEGADE	3.3
SHENANDOAH	3.3
SR 8210	3.3
SRX 8084	3.3
WPEZE (WVPB-1C)	3.3
SCORPION (ZPS-2PTF)	3.3
ARID 3 (J-98)	3.0
ATF-196	3.0
BAR FA 6D	3.0
BAR FA6 US3	3.0
BAR FA6 US6F	3.0
BONSAI	3.0

'99 AUG 23 PM2:40
USDA-AMS-PVPO
RECEIVED

Table 32
9900399

Bonsai 2000, Turf Merchants, Inc.

27

TABLE 34. WINTER COLOR RATINGS OF TALL FESCUE CULTIVARS
(CONT'D) 1998 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION

NAME	OK1
BRANDY (J-101)	3.0
BULLDAWG (PICK GA-96)	3.0
DUSTER	3.0
EA 41	3.0
EMPRESS	3.0
GAZELLE	3.0
GOOD-EN (KOOS 96-14)	3.0
ISI-TF10	3.0
ISI-TF9	3.0
KITTY HAWK S.S.T. (SS45DW)	3.0
LEPRECHAUN	3.0
LION	3.0
MB 210	3.0
MB 213	3.0
MB 214	3.0
MB 215	3.0
MB 28	3.0
PICK FA 15-92	3.0
PICK FA 6-91	3.0
PICK FA N-93	3.0
PICK FA UT-93	3.0
PICK RT-95	3.0
PSII-TF-10	3.0
PSII-TF-9	3.0
R5AU	3.0
REBEL 2000 (AA-989)	3.0
SHORTSTOP II	3.0
SOUTHERN CHOICE	3.0
SRX 8500	3.0
SUNPRO	3.0
TOMAHAWK-E	3.0
WATCHDOG (PICK FA B-93)	3.0
WOLFPACK (PST-R5TK)	3.0
WVPB-1D	3.0
ZPS-5LZ	3.0
ARABIA (J-5)	2.7
BAR FA6 US2U	2.7
VELOCITY (AA-983)	2.7
WX3-275	2.7
ALAMO E	2.3
ATF-022	2.3
LSD VALUE	1.0
C.V. (%)	18.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

99 AUG 23 PM 2:40
USDA-AMS-PVPO
RECEIVED
9900399

Table 33

Bonsai 2000, Turf Merchants, Inc.

TABLE 38. RED THREAD RATINGS OF TALL FESCUE CULTIVARS 1/
1998 DATA

RED THREAD RATINGS 1-9; 9=NO DISEASE 2/

NAME	VA1	NAME	VA1
AV-1	8.0	PICK FA N-93	6.7
COMSTOCK (SSDE31)	8.0	PIXIE E+	6.7
KENTUCKY-31 W/ENDO.	8.0	PST-523	6.7
ATF-020	7.7	R5AU	6.7
BONSAI	7.7	REGIMENT	6.7
DP 7952	7.7	RENEGADE	6.7
ARID	7.3	SOUTHERN CHOICE	6.7
DLF-1	7.3	SR 8210	6.7
EQUINOX (TMI-N91)	7.3	TOMAHAWK-E	6.7
GOOD-EN (KOOS 96-14)	7.3	ARID 2 (J-3)	6.3
JSC-1	7.3	BRANDY (J-101)	6.3
JTTFC-96	7.3	GENESIS	6.3
PSII-TF-10	7.3	LION	6.3
REBEL SENTRY (AA-A91)	7.3	MB 211	6.3
RED COAT (ATF-038)	7.3	MB 216	6.3
TITAN 2	7.3	MB 28	6.3
WPEZE (WVPB-1C)	7.3	PICK FA 15-92	6.3
AZTEC II (TMI-AZ)	7.0	PICK FA 6-91	6.3
CHAPEL HILL (TA-7)	7.0	PLANTATION (PENNINGTON-1901)	6.3
JTTFA-96	7.0	PSII-TF-9	6.3
LEPRECHAUN	7.0	REMBRANDT (LTP-4026 E+)	6.3
MARKSMAN	7.0	SUNPRO	6.3
OFI-96-31	7.0	VELOCITY (AA-983)	6.3
OFI-96-32	7.0	ANTHEM II (TMI-FMN)	6.0
PEDESTAL (PC-AO)	7.0	ARABIA (J-5)	6.0
RESERVE (ATF-182)	7.0	ARID 3 (J-98)	6.0
SHENANDOAH	7.0	ATF-022	6.0
TULSA	7.0	ATF-257	6.0
WVPB-1D	7.0	BANDANA (PST-R5AE)	6.0
ZPS-5LZ	7.0	CU9501T	6.0
ALAMO E	6.7	EA 41	6.0
BULLDAWG (PICK GA-96)	6.7	EC-101	6.0
CORONADO GOLD (PST-5RT)	6.7	ISI-TF10	6.0
CU9502T	6.7	ISI-TF11	6.0
DP 50-9011	6.7	MB 213	6.0
ISI-TF9	6.7	MB 215	6.0
JAGUAR 3	6.7	MUSTANG II	6.0
KITTY HAWK S.S.T. (SS45DW)	6.7	PICK FA 20-92	6.0
MB 212	6.7	PICK FA XK-95	6.0
MB 214	6.7	PRO 8430	6.0
MB 26	6.7	REBEL 2000 (AA-989)	6.0
MB 29	6.7	SAFARI	6.0
MILLENNIUM (TMI-RBR)	6.7	SHENANDOAH II (WRS2)	6.0
OLYMPIC GOLD (PST-5E5)	6.7	SHORTSTOP II	6.0

'99 AUG 23 PM 2:40
USDA-AMS-PYCO
RECEIVED
109

Table 33

990039

Bonsai 2000, Turf Merchants, Inc.

30

TABLE 38. (CONT'D) RED THREAD RATINGS OF TALL FESCUE CULTIVARS
1998 DATA

RED THREAD RATINGS 1-9; 9=NO DISEASE

NAME	VA1
SRX 8500	6.0
TWILIGHT II (TMI-TW)	6.0
WX3-275	6.0
APACHE II	5.7
ATF-188	5.7
ATF-253	5.7
COCHISE II	5.7
COYOTE	5.7
CROSSFIRE II	5.7
FALCON II	5.7
OFI-931	5.7
OFI-FWY	5.7
SRX 8084	5.7
WOLFPACK (PST-R5TK)	5.7
BAR FA 6LV	5.3
BAR FA6 US3	5.3
BAR FA6D USA	5.3
BONSAI 2000 (BULLET)	5.3
MB 210	5.3
OFI-951	5.3
PICK FA UT-93	5.3
PICK RT-95	5.3
PST-5TO	5.3
BAR FA 6D	5.0
PST-5M5	5.0
WVPB-1B	5.0
AXIOM (ATF-192)	4.7
BAR FA6 US6F	4.7
DUSTER	4.7
ATF-196	4.3
BAR FA6 US2U	4.3
EMPRESS	4.3
FINELAWN PETITE	4.3
GAZELLE	4.3
SCORPION (ZPS-2PTF)	4.3
BRAVO (RG-93)	4.0
MASTERPIECE (LTP-SD-TF)	4.0
TAR HEEL	3.7
CORONADO	3.3
WATCHDOG (PICK FA B-93)	3.3
BAR FA6 US1	2.3
LSD VALUE	2.0
C.V. (%)	20.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

'99 AUG 23 PM2:40
USDA-AMS-PVPO
PDCA 100399

Table 33

TABLE 43.

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS 1/
AT FAYETTEVILLE, AR 2/
1998 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE

NAME	JULY	SEPTEMBER	MEAN
ATF-257	9.0	7.0	8.0
COYOTE	7.7	7.7	7.7
JAGUAR 3	7.7	7.7	7.7
ATF-253	8.3	6.7	7.5
COCHISE II	7.7	7.3	7.5
LION	7.3	7.7	7.5
EQUINOX (TMI-N91)	7.3	7.3	7.3
ISI-TF11	8.0	6.7	7.3
PST-5M5	8.3	6.3	7.3
CHAPEL HILL (TA-7)	7.7	6.7	7.2
ISI-TF9	7.3	7.0	7.2
KENTUCKY-31 W/ENDO.	7.3	7.0	7.2
MB 212	8.0	6.3	7.2
COMSTOCK (SSDE31)	7.0	7.0	7.0
DLF-1	7.0	7.0	7.0
MUSTANG II	8.3	5.7	7.0
PST-523	8.7	5.3	7.0
BONSAI 2000 (BULLET)	7.3	6.3	6.8
BRAVO (RG-93)	7.0	6.7	6.8
MB 210	7.7	6.0	6.8
MB 211	7.3	6.3	6.8
OFI-96-31	7.0	6.7	6.8
RED COAT (ATF-038)	6.7	7.0	6.8
WVPB-1D	8.0	5.7	6.8
ARID 3 (J-98)	8.0	5.3	6.7
CORONADO GOLD (PST-5RT)	6.7	6.7	6.7
CU9501T	7.7	5.7	6.7
MASTERPIECE (LTP-SD-TF)	7.3	6.0	6.7
MB 213	7.3	6.0	6.7
MB 29	6.7	6.7	6.7
OLYMPIC GOLD (PST-5E5)	8.7	4.7	6.7
PSII-TF-9	7.0	6.3	6.7
WATCHDOG (PICK FA B-93)	8.0	5.3	6.7
ARID 2 (J-3)	6.3	6.7	6.5
ATF-022	7.7	5.3	6.5
ATF-188	7.0	6.0	6.5
ISI-TF10	7.7	5.3	6.5
JTTFA-96	7.0	6.0	6.5
LEPRECHAUN	7.3	5.7	6.5
MILLENNIUM (TMI-RBR)	7.7	5.3	6.5
PICK FA 20-92	8.0	5.0	6.5
PICK FA 6-91	6.7	6.3	6.5
PLANTATION (PENNINGTON-1901)	8.0	5.0	6.5
PSII-TF-10	7.3	5.7	6.5
PST-5TO	7.3	5.7	6.5
R5AU	8.3	4.7	6.5
REBEL SENTRY (AA-A91)	7.3	5.7	6.5
REMBRANDT (LTP-4026 E+)	8.3	4.7	6.5
RESERVE (ATF-182)	7.7	5.3	6.5
SHENANDOAH II (WRS2)	7.3	5.7	6.5
SHORTSTOP II	7.0	6.0	6.5
SR 8210	6.7	6.3	6.5
TITAN 2	7.7	5.3	6.5
ATF-020	7.0	5.7	6.3
AV-1	7.0	5.7	6.3
BAR FA6 US2U	7.7	5.0	6.3
CROSSFIRE II	7.3	5.3	6.3
EA 41	6.0	6.7	6.3
EC-101	7.3	5.3	6.3
GENESIS	7.7	5.0	6.3
JTTFC-96	7.7	5.0	6.3
PEDESTAL (PC-AO)	7.3	5.3	6.3
PICK FA XK-95	7.0	5.7	6.3
PRO 8430	7.3	5.3	6.3
SOUTHERN CHOICE	7.3	5.3	6.3
TAR HEEL	8.0	4.7	6.3
TULSA	6.3	6.3	6.3
WPEZE (WVPB-1C)	8.7	4.0	6.3
WVPB-1B	6.7	6.0	6.3
SCORPION (ZPS-2PTF)	7.7	5.0	6.3
APACHE II	7.0	5.3	6.2
ATF-196	5.7	6.7	6.2
AZTEC II (TMI-AZ)	7.0	5.3	6.2
BAR FA6 US1	7.0	5.3	6.2
BAR FA6 US3	7.7	4.7	6.2
DP 50-9011	7.0	5.3	6.2
EMPRESS	7.3	5.0	6.2
KITTY HAWK S.S.T. (SS45DW)	6.3	6.0	6.2
MB 28	6.7	5.7	6.2
SHENANDOAH	7.0	5.3	6.2
VELOCITY (AA-983)	7.3	5.0	6.2
ARID	6.3	5.7	6.0
BANDANA (PST-R5AE)	7.0	5.0	6.0
CU9502T	7.7	4.3	6.0
JSC-1	6.7	5.3	6.0
MARKSMAN	8.0	4.0	6.0
MB 215	6.7	5.3	6.0
OFI-96-32	7.3	4.7	6.0
OFI-FWY	7.3	4.7	6.0
PICK FA N-93	6.0	6.0	6.0
TWILIGHT II (TMI-TW)	7.0	5.0	6.0
WOLFPACK (PST-R5TK)	8.0	4.0	6.0
ALAMO E	5.0	6.7	5.8
AXIOM (ATF-192)	6.0	5.7	5.8

99 AUG 23 P12:40
USDA-AMS-PVPO
RECEIVED

Table 34
9900399

31

Bonsai 2000, Turf Merchants, Inc.

32

TABLE 43. (CONT'D)

BROWN PATCH RATINGS OF TALL FESCUE CULTIVARS
AT FAYETTEVILLE, AR
1998 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE

NAME	JULY	SEPTEMBER	MEAN
BRANDY (J-101)	5.7	6.0	5.8
MB 214	6.3	5.3	5.8
PICK RT-95	7.0	4.7	5.8
REBEL 2000 (AA-989)	8.7	3.0	5.8
RENEGADE	7.3	4.3	5.8
ANTHEM II (TMI-FMN)	6.7	4.7	5.7
BULLDAWG (PICK GA-96)	6.3	5.0	5.7
OFI-951	6.0	5.3	5.7
PICK FA 15-92	5.3	6.0	5.7
SAFARI	7.7	3.7	5.7
SRX 8500	6.0	5.3	5.7
WX3-275	6.7	4.7	5.7
DP 7952	5.3	5.7	5.5
FINELAWN PETITE	6.3	4.7	5.5
MB 26	5.7	5.3	5.5
SUNPRO	6.3	4.7	5.5
ARABIA (J-5)	5.3	5.3	5.3
MB 216	6.3	4.3	5.3
PICK FA UT-93	4.7	6.0	5.3
ZPS-5LZ	5.7	5.0	5.3
BAR FA6D USA	6.0	4.3	5.2
DUSTER	7.0	3.3	5.2
PIXIE E+	6.7	3.7	5.2
BAR FA 6D	5.3	4.7	5.0
BONSAI	5.3	4.7	5.0
OFI-931	5.3	4.7	5.0
SRX 8084	5.7	4.3	5.0
CORONADO	5.7	4.0	4.8
FALCON II	6.0	3.7	4.8
GOOD-EN (KOOS 96-14)	6.3	3.3	4.8
REGIMENT	6.3	3.3	4.8
TOMAHAWK-E	6.0	3.7	4.8
BAR FA 6LV	5.0	3.3	4.2
BAR FA6 US6F	5.7	2.7	4.2
GAZELLE	5.3	2.7	4.0
LSD VALUE	2.0	5.8	2.9
C.V. (%)	14.9	31.5	17.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

'99 AUG 23 PM 2:40
RECEIVED
USDA-ARS-PVPO

Table 34

9900399

Bonsai 2000, Turf Merchants, Inc.

TABLE 37.

LEAF SPOT RATINGS OF TALL FESCUE CULTIVARS 1/
1997 DATA

LEAF SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	ME1	NAME	ME1	NAME	ME1
COYOTE	8.7	PICK FA 6-91	6.0	LION	4.7
MILLENNIUM (TMI-RBR)	8.7	PLANTATION (PENNINGTON-1901)	6.0	MARKSMAN	4.7
CU9502T	7.7	PST-5M5	6.0	PICK FA UT-93	4.7
GAZELLE	7.7	RENEGADE	6.0	PST-5TO	4.7
PICK FA N-93	7.7	ZPS-2PTF	6.0	TAR HEEL	4.7
PRO 8430	7.7	APACHE II	5.7	TITAN 2	4.7
ZPS-5LZ	7.7	ATF-020	5.7	ATF-022	4.3
BAR FA6D USA	7.3	BAR FA6 US2U	5.7	ATF-038	4.3
MB 210	7.3	CORONADO GOLD (PST-5RT)	5.7	ATF-192	4.3
MB 214	7.3	JAGUAR 3	5.7	ATF-196	4.3
REBEL 2000 (AA-989)	7.3	PICK RT-95	5.7	BRAVO (RG-93)	4.3
REMBRANDT (LTP-4026 E+)	7.3	PIXIE E+	5.7	OFI-96-32	4.3
WOLFPACK (PST-R5TK)	7.3	RESERVE (ATF-182)	5.7	PC-AO	4.3
AA-983	7.0	SHORTSTOP II	5.7	TOMAHAWK-E	4.3
GENESIS	7.0	SUNPRO	5.7	WX3-275	4.3
MB 216	7.0	AZTEC II (TMI-AZ)	5.3	ANTHEM II (TMI-FMN)	4.0
PST-5E5	7.0	BAR FA6 US1	5.3	ATF-257	4.0
SRX 8084	7.0	FALCON II	5.3	ISI-TF10	4.0
TA-7	7.0	FINELAWN PETITE	5.3	PST-523	4.0
ARABIA (J-5)	6.7	ISI-TF9	5.3	REGIMENT	4.0
BANDANA (PST-R5AE)	6.7	J-101	5.3	SRX 8500	4.0
BAR FA6 US3	6.7	JTTFA-96	5.3	TULSA	4.0
CU9501T	6.7	MB 211	5.3	TWILIGHT II (TMI-TW)	4.0
MB 215	6.7	MUSTANG II	5.3	DP 7952	3.7
MB 26	6.7	OFI-931	5.3	DUSTER	3.7
PICK GA-96	6.7	PICK FA 15-92	5.3	EA 41	3.7
WRS2	6.7	PICK FA 20-92	5.3	OFI-FWY	3.7
WVPB-1B	6.7	SAFARI	5.3	PSII-TF-10	3.7
ATF-188	6.3	SHENANDOAH	5.3	SOUTHERN CHOICE	3.7
BAR FA 6D	6.3	SR 8210	5.3	ALAMO E	3.3
CORONADO	6.3	ARID 2 (J-3)	5.0	ARID	3.3
CROSSFIRE II	6.3	ARID 3 (J-98)	5.0	AV-1	3.3
GOOD-EN (KOOS 94-14)	6.3	BAR FA6 US6F	5.0	COMSTOCK (SSDE31)	3.3
MASTERPIECE (LTP-SD-TF)	6.3	COCHISE II	5.0	JSC-1	3.3
MB 29	6.3	DP 50-9011	5.0	PICK FA XK-95	3.3
OFI-96-31	6.3	EC-101	5.0	KENTUCKY-31 W/ENDO.	3.0
PSII-TF-9	6.3	EQUINOX (TMI-N91)	5.0	WPEZE (WVPB-1C)	3.0
BAR FA 6LV	6.0	JTTFC-96	5.0	DLF-1	2.7
BONSAI 2000 (BULLET)	6.0	KITTY HAWK S.S.T. (SS45DW)	5.0	REBEL SENTRY (AA-A91)	2.7
ISI-TF11	6.0	PICK FA B-93	5.0		
LEPRECHAUN	6.0	R5AU	5.0	LSD VALUE	3.1
MB 212	6.0	WVPB-1D	5.0		
MB 213	6.0	ATF-253	4.7	C.V. (%)	35.2
MB 28	6.0	BONSAI	4.7		
OFI-951	6.0	EMPRESS	4.7		

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

'99 AUG 23 PM2:41
USDA-AMS-PVP
RECEIVED

Table 35

9900399

33

TABLE 39.

PYTHIUM BLIGHT RATINGS OF TALL FESCUE CULTIVARS 1/
1997 DATA

PYTHIUM BLIGHT RATINGS 1-9; 9=NO DISEASE 2/

NAME	KS2	NAME	KS2	NAME	KS2
TOMAHAWK-E	7.3	GENESIS	4.7	BAR FA6 US2U	3.3
KENTUCKY-31 W/ENDO.	7.0	MB 213	4.7	COYOTE	3.3
AV-1	6.7	MB 214	4.7	CROSSFIRE II	3.3
ISI-TF10	6.7	MB 26	4.7	EC-101	3.3
JSC-1	6.7	PICK FA 20-92	4.7	MB 211	3.3
KITTY HAWK S.S.T. (SS45DW)	6.7	WRS2	4.7	PICK FA 15-92	3.3
RENEGADE	6.7	ANTHEM II (TMI-FMN)	4.3	PST-523	3.3
DP 7952	6.3	BAR FA6 US3	4.3	REBEL SENTRY (AA-A91)	3.3
JTTFC-96	6.3	BONSAI 2000 (BULLET)	4.3	TA-7	3.3
GOOD-EN (KOOS 94-14)	6.3	EA 41	4.3	WPEZE (WVPB-1C)	3.3
OFI-931	6.3	EQUINOX (TMI-N91)	4.3	DUSTER	3.0
FALCON II	6.0	MB 212	4.3	MB 215	3.0
FINELAWN PETITE	6.0	PC-AO	4.3	MILLENNIUM (TMI-RBR)	3.0
PRO 8430	6.0	PICK RT-95	4.3	SRX 8500	3.0
SAFARI	6.0	SHENANDOAH	4.3	SUNPRO	3.0
APACHE II	5.7	SR 8210	4.3	TULSA	3.0
CU9502T	5.7	SRX 8084	4.3	AA-983	2.7
DLF-1	5.7	TITAN 2	4.3	ATF-188	2.7
LEPRECHAUN	5.7	WVPB-1D	4.3	ATF-192	2.7
MASTERPIECE (LTP-SD-TF)	5.7	ZPS-2PTF	4.3	ATF-257	2.7
PICK FA 6-91	5.7	ARID	4.0	BANDANA (PST-R5AE)	2.7
PST-5E5	5.7	BAR FA6 US6F	4.0	OFI-951	2.7
WVPB-1B	5.7	BRAVO (RG-93)	4.0	PIXIE E+	2.7
BAR FA 6D	5.3	COMSTOCK (SSDE31)	4.0	R5AU	2.7
BAR FA6D USA	5.3	CORONADO GOLD (PST-5RT)	4.0	SOUTHERN CHOICE	2.7
DP 50-9011	5.3	CU9501T	4.0	WOLFPACK (PST-R5TK)	2.7
MB 210	5.3	EMPRESS	4.0	JTTFA-96	2.3
MB 216	5.3	ISI-TF11	4.0	REMBRANDT (LTP-4026 E+)	2.3
MB 29	5.3	ISI-TF9	4.0	ZPS-5LZ	2.3
WX3-275	5.3	JAGUAR 3	4.0	J-101	2.0
ALAMO E	5.0	MB 28	4.0	MUSTANG II	2.0
BAR FA6 US1	5.0	PSII-TF-9	4.0	PICK FA B-93	2.0
BONSAI	5.0	RESERVE (ATF-182)	4.0	PICK FA UT-93	2.0
CORONADO	5.0	TAR HEEL	4.0	REGIMENT	2.0
MARKSMAN	5.0	TWILIGHT II (TMI-TW)	4.0	SHORTSTOP II	2.0
OFI-96-31	5.0	ARID 3 (J-98)	3.7	PLANTATION (PENNINGTON-1901)	1.7
OFI-96-32	5.0	COCHISE II	3.7	GAZELLE	1.3
OFI-FWY	5.0	LION	3.7	PICK GA-96	1.3
PSII-TF-10	5.0	PICK FA N-93	3.7	REBEL 2000 (AA-989)	1.0
PST-5M5	5.0	PICK FA XK-95	3.7		
PST-5T0	5.0	ARID 2 (J-3)	3.3	LSD VALUE	3.3
ARABIA (J-5)	4.7	ATF-020	3.3		
ATF-253	4.7	ATF-022	3.3	C.V. (%)	48.5
AZTEC II (TMI-AZ)	4.7	ATF-038	3.3		
BAR FA 6LV	4.7	ATF-196	3.3		

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

USDA-AMS-PVPO
RECEIVED
99003399

Table 39

34

9900300

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

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)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Turf Merchants, Inc.	TMI-Bullet	Bonsai 2000

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
33390 Tangent Loop Tangent, Oregon 97389	(541)926-8649	(541)926-4435
	7. PVPO NUMBER 9900399	

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? [X] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO **If no, give name of country**

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[X] YES [ ] NO **If no, give name of country**

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

RECEIVED USDA-AMS-PVPO '99 AUG 23 PM 2:41

EASE NOTE:

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

f 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.

f 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.

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

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

ccording to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for his information collection is 0581-0055. The time required to compete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, earching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

he U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

o file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal mployment opportunity employer.