

**A REPORT OF THE
NATIONAL GRASS VARIETY REVIEW BOARD**



ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

NATIONAL GRASS VARIETY REVIEW BOARD REPORT ©2008

Copyrighted Material of the Association of Official Seed Certifying Agencies (AOSCA)

APRIL 2008



NATIONAL GRASS
VARIETY REVIEW BOARD

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES
(FEBRUARY 2008)

The Association of Official Seed Certifying Agencies (AOSCA), National Grass Variety Review Board reviewed the following varieties on February 15, 2008 in Moline, IL. The Board recommended the inclusion of these varieties for certification. Seed of these varieties may be certified, providing production meets all standards of the Certifying Agency of the jurisdiction in which the seed is grown.

All variety information, including descriptions, claims and research data to support any claim was supplied to the National Grass Variety Review Board by the applicants. The National Grass Variety Review Board makes judgments regarding recommendation of varieties for inclusion into certification based on the data supplied. Beyond this, the National Grass Variety Review Board takes no position on the accuracy or truthfulness of any description or claim made by the applicants.

Further information on current procedures, application forms and details regarding the National Grass Variety Review Board can be obtained from:

Chester Boruff, Chief Executive Officer
AOSCA
1601 52nd Ave., Suite 1
Moline, Illinois 61265

Telephone (309) 736-0120
Fax (309) 736-0115
E-Mail cboruff@aosca.org

Respectfully submitted,

James Bostick, Chair
National Grass Variety Review Board

2008 AOSCA GRASS NVRB TABLE OF CONTENTS

Applicant	Kind	Page (s)	Variety Name	Experimental
Barenbrug USA	Tall Fescue	1	BAR FA 6 FRD	6 FRD
Barenbrug USA	Kentucky Bluegrass	2	Barduke	BAR VV 8536
Barenbrug USA	Tall Fescue	3	Bardurum	BAR FA 9BTR6
Barenbrug USA	Chewings Fescue	4	Bridgeport II	BAR CHF 8FUS2
Barenbrug USA	Tall Fescue	5	Drover	BAR FA 1004
Barenbrug USA	Tetraploid Perennial Ryegrass	6	Remington	BAR LpT ROM 99
DLF International Seeds	Creeping Bentgrass	7	Cobra 2	IS-AP 9
DLF International Seeds	Perennial Ryegrass	8	MBH 2	IS-MBH 2
DLF International Seeds	Creeping Bentgrass	9		IS-AP 14
DLF International Seeds	Orchardgrass	10		IS-OG 4
DLF International Seeds	Intermediate Ryegrass	11	Nitro	IS-IR 3
DLF International Seeds	Perennial Ryegrass	12	PR 8821	IS-PR 256
DLF International Seeds	Tall Fescue	13	Rhizing Star	IS-TF 112
DLF International Seeds	Tall Fescue	14	Savory	IS-FTF 12
FFR Cooperative	Timothy	15	Crest	TM0102
FFR Cooperative	Orchardgrass	16		OG0203G
FFR Cooperative	Orchardgrass	17	Seco	OG0204G
FFR Cooperative	Orchardgrass	18	Bruno	OG0205G
FFR Cooperative	Tall Fescue	19		TF0201
FFR Cooperative	Timothy	20		TM9701
J. R. Simplot Company	Kentucky Bluegrass	21-22	Action	S-22
J. R. Simplot Company	Kentucky Bluegrass	23-24	Camas	S-24
McCarthy Research Farm LLC	Tall Fescue	25	AST7001	FMS
McCarthy Research Farm LLC	Tall Fescue	26	AST7002	PT-04
McCarthy Research Farm LLC	Tall Fescue	27	AST7003	ATF-75
McCarthy Research Farm LLC	Tall Fescue	28		AST-1
McCarthy Research Farm LLC	Tall Fescue	29		AST-2
McCarthy Research Farm LLC	Tall Fescue	30		AST-3
McCarthy Research Farm LLC	Tall Fescue	31		AST-4
McCarthy Research Farm LLC	Tall Fescue	32		BGR-TF1
McCarthy Research Farm LLC	Tall Fescue	33		BGR-TF2
McCarthy Research Farm LLC	Tall Fescue	34		CS-TF1
McCarthy Research Farm LLC	Tall Fescue	35		DKS
McCarthy Research Farm LLC	Tall Fescue	36	Dorado	GH-128
McCarthy Research Farm LLC	Tall Fescue	37		GWTF
McCarthy Research Farm LLC	Tall Fescue	38		KZ-1
McCarthy Research Farm LLC	Tall Fescue	39		KZ-2
McCarthy Research Farm LLC	Tall Fescue	40		LR-TF1
McCarthy Research Farm LLC	Tall Fescue	41		LR-TF2
McCarthy Research Farm LLC	Tall Fescue	42		LS03
McCarthy Research Farm LLC	Tall Fescue	43		LS06
McCarthy Research Farm LLC	Tall Fescue	44		LS11
McCarthy Research Farm LLC	Tall Fescue	45		MPE

Applicant	Kind	Page(s)	Variety Name	Experimental
McCarthy Research Farm LLC	Tall Fescue	46		RNP
McCarthy Research Farm LLC	Tall Fescue	47		SC-07
NexGen Turf Research LLC	Tall Fescue	48		ATF1203
Olsen Agricultural Co., Inc.	Perennial Ryegrass	49	Edison	LF-110, OSC-110
Olsen Agricultural Co., Inc.	Perennial Ryegrass	50	Galileo	LF-116, OSC-116
Olsen Agricultural Co., Inc.	Perennial Ryegrass	51	Michelangelo	LF-109, OSC-109
Olsen Agricultural Co., Inc.	Perennial Ryegrass	52	Newton	LF-112, OSC-112
Olsen Agricultural Co., Inc.	Perennial Ryegrass	53	Whitney	LF-108, OSC-108
Oregro Seeds, Inc.	Perennial Ryegrass	54	Brea	04-BRE
Oregro Seeds, Inc.	Chewings Fescue	55	Chancellor	03-CHFSHHY
Oregro Seeds, Inc.	Sheep Fescue	56	Dall	04-SHF
Oregro Seeds, Inc.	Hard Fescue	57	Granite	03-HFEXP
Oregro Seeds, Inc.	Perennial Ryegrass	58	Heat	04-HEAT
Oregro Seeds, Inc.	Annual Ryegrass	59	NuSprint	ARG-N
Oregro Seeds, Inc.	Perennial Ryegrass	60	Ringer II	04-BEN
Pickseed	Tall Fescue	61		COL-1
Pickseed	Tall Fescue	62		COL-J
Pickseed	Tall Fescue	63		COL-M
Pickseed	Tall Fescue	64		J-140
Pickseed	Tall Fescue	65		M4
Radix Research, Inc.	Perennial Ryegrass	66	Full Throttle	CAS-MP64, MP64
Radix Research, Inc.	Tall Fescue	67	Hymark	CAS-EA79, EA79
Radix Research, Inc.	Perennial Ryegrass	68		RAD-PR27, PR27
Radix Research, Inc.	Tall Fescue	69		RAD-TF17, TF17
Radix Research, Inc.	Tall Fescue	70	Turbo RZ	RAD-TF8, TF8, Bur-TF8
Blue Moon Farms LLC	Tall Fescue	71	Paladin	4.0504
Blue Moon Farms LLC	Hard Fescue	72	Reliant IV	IB4 HF
Variety Fluorescence Levels, March 2008				

BAR FA 6 FRD (6 FRD)

1. Variety name: BAR FA 6FRD Kind: Tall Fescue
Genus: *Festuca* Species: *arundinacea*
Experimental designation(s): 6FRD
Date submitted: January 15, 2008
2. BAR FA 6FRD' was developed for drought stress and aggressiveness in competition nursery. The germplasm used to develop 'BAR FA 6FRD' was from a diverse germplasm collection in US. Additional selection criteria were rust resistance, forage potential and low reheading. Altogether the plants were in selection for 5 years.
3. In space plant nursery in Albany, Oregon the heading date of BAR FA 6FRD is May 10th. This is 8 days later than Fawn and 14 days earlier than Bariance. Flag leaf height of 'BAR FA 6FRD' (60.9 cm) is similar to Bariance (64.9 cm) and Fawn (59.3 cm). Flag leaf length of 'BAR FA 6FRD' (15.8 cm) is less than Bariance (18.6 cm) and more than Kentucky 31+ (12.1 cm). Flag leaf width of 'BAR FA 6FRD' (7.5 mm) is less than Bariance (8.2 mm) and more than Kentucky 31+ (6.4 mm).
4. The forage yield of 'BAR FA 6FRD' (2.09 to 5.9 tons/ac) is higher than Retu (1.77 to 5.24 tons/ac). The forage yield of 'BAR FA 6FRD' is similar to Kentucky 31+ (2.14 to 6.18 tons/ac). The percent stand rating of 'BAR FA 6FRD' (63.3) is similar to Kentucky 31+ (61.7) and Dovey (60.0) after 3 years of grazing.
5. 'BAR FA 6FRD' has been tested in Kentucky and Indiana. It is suitable for hay production and pasture use in Kentucky and Indiana.
6. Breeder seed of 'BAR FA 6FRD' tall fescue is maintained in environmentally controlled long-term storage Barenbrug headquarters in Oosterhout, The Netherlands and at Barenbrug USA West Coast Research Center in Albany Oregon. This variety is limited to one generation of breeder, one of foundation, one of registered, and one of certified. Stand limitations are 3 years for foundation, 3 years for registered, and 8 years for certified. Foundation and Registered seed fields may be harvested for additional 5 years for certified seed production
7. If 'BAR FA 6FRD' is accepted by official seed certifying agencies, certified seed will be first offered for sale in Fall 2008.



Barduke (BAR VV 8536)

1. Variety Name: Barduke Kind: Kentucky Bluegrass
Genus: *Poa* Species: *pratensis* L.
Experimental Designation(s): VV-8536 (BAR VV-8536)
Date Submitted: 14 January 2008
2. Barduke was developed from a collection made in Hessen, Germany. Breeder seed was first produced in 2005.
3. When grown as spaced plants near Albany, OR in 2006 and 2007 (planted fall 2005):
 - I. Average heading date was 04 May, which is 4 days later than Baron and 7 days earlier than Midnight.
 - II. Average plant height is 53.6 cm, which is similar to Baron (48.1 cm) and Midnight (54.0 cm).
 - III. Average flag leaf height is 27.4 cm, which is similar to Baron (24.0 cm) and Midnight (29.8 cm).
 - IV. Average flag leaf length is 4.6 cm, which is similar to Baron (4.5 cm) and Midnight (5.9 cm).
 - V. Average flag leaf width is 3.5 mm, which is similar to Baron (3.7 mm) and Midnight (3.3 mm).
 - VI. Average panicle length is 8.4 cm, which is similar to Baron (8.1 cm) and Midnight (8.6 cm).
4. The turf quality of Barduke (5.3-5.8 on 1-9 scale; 9=ideal turf quality) is similar to Baron (6.0-6.3) and less quality than Midnight (7.1-7.3).

The average genetic color of Barduke (4.3-6.3 on 1-9 scale; 9=very dark) is similar to Baron (4.3-7.0) and a lighter genetic color than Prosperity (7.3-8.0).
5. Barduke has been tested for turf quality in Kentucky, North Carolina, Pennsylvania and Virginia. At these locations Barduke had acceptable turf quality and is suitable for lawns in these areas.
6. Breeder seed stock is maintained by West Coast Research Center, Barenbrug USA, Inc., Albany, OR, USA. Breeder seed is stored in environmentally controlled long-term storage facilities at the West Coast Research Center, Albany (USA) and Barenbrug BV Holland, Oosterhout, The Netherlands. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Barduke is accepted by official certifying agencies, Certified Seed will first be offered for sale in May 2008.



Bardurum (BAR FA 9BTR6)

1. Variety name: Bardurum
Genus: *Festuca*
Experimental designation(s): BAR FA 9BTR6
Date submitted: January 15, 2008
Kind: Tall Fescue
Species: *arundinacea*
2. Bardurum was developed for drought and rust tolerance. The germplasm used to develop Bardurum was from the varieties Fuego and Sahara. Additional selection criteria were autumn and spring growth, forage production potential and seed yield. Altogether the plants were in selection for 4 years. The breeder seed was produced in 1998.
3. In space plant nursery in Albany, Oregon the heading date of Bardurum is May 15th. This is 14 days later than Fawn and 9 days earlier than Bariance. Flag leaf height of Bardurum (61.5 cm) is similar to Fuego (62.4 cm) and Fawn (59.3 cm). Flag leaf width of Bardurum (8.1 mm) is more than Fuego (7.2 mm) and Fawn (7.1 mm).
4. The forage yield of Bardurum (4.6 to 10.1 tons/ac) is higher than Bariance (2.6 to 7.6 tons/ac). The forage yield of Bardurum is similar to Kentucky 31+ (4.0 to 11.0 tons/ac). The stand score of Bardurum (90.4 to 92.5) was similar to Arkplus (92.3 to 93.7) and Enhance (87.0 to 90.0).
5. Bardurum has been tested in Kentucky and Alabama. It is suitable for hay production and pasture use in Kentucky and Alabama
6. Breeder seed of Bardurum tall fescue is maintained in environmentally controlled long-term storage Barenbrug headquarters in Oosterhout, The Netherlands and at Barenbrug USA West Coast Research Center in Albany Oregon. This variety is limited to one generation of breeder, one of foundation, one of registered, and one of certified. Stand limitations are 3 years for foundation, 3 years for registered, and 8 years for certified. Foundation and Registered seed fields may be harvested for additional 5 years for certified seed production
7. If Bardurum is accepted by official seed certifying agencies, certified seed will be first offered for sale in Fall 2008.



Bridgeport II (BAR CHF 8FUS2)

1. Variety Name: Bridgeport II Kind: Chewings Fescue
Genus: *Festuca*
Species: *rubra* L. subsp. *commutata* Gaudin
Experimental Designation(s): BAR CHF 8FUS2
Date Submitted: 14 January 2008
2. Bridgeport II was developed from two cycles of selections in France and two cycles of selection in the USA (OR). The germplasm used to develop Bridgeport II was mainly from Brideport, but also Bargreen and Tiffany. In the first two cycles, the primary selection criteria were dark green color and turf performance. In the second two cycles, the primary selection criteria were dark green color, seed yield potential, reduced incidence of rust and similar maturity. Breeder seed was first produced in 1998.
3. When grown as spaced plants near Albany, OR in 2006 and 2007 (planted fall 2005):
 - I. Average heading date was 24 April, which is 16 days earlier than Jamestown and similar to Shadow.
 - II. Average plant height is 71.2 cm, which is similar to Bridgeport (29.6 cm) and Jamestown (68.9 cm).
 - III. Average flag leaf height is 29.3 cm, which is similar to Bridgeport (29.6 cm) and Jamestown (29.4 cm).
 - IV. Average flag leaf length is 10.3 cm, which is shorter than Bridgeport (12.5 cm), but similar to Jamestown (10.1 cm).
 - V. Average flag leaf width is 2.5 mm, which is similar to Bridgeport (2.9 mm) and Jamestown (2.5 mm).
 - VI. Average panicle length is 13.6 cm, which is shorter than Bridgeport (14.9 cm), but similar to Tiffany (12.4 cm).
4. The turf quality of Bridgeport II (5.1-5.9 on 1-9 scale; 9=ideal turf quality) is similar to Bridgeport (5.2-6.0) and Tiffany (6.3-6.2).
The average genetic color of Bridgeport II (6.0-8.6 on 1-9 scale; 9=very dark green) is genetically darker than Bridgeport (4.2-7.1) and Jamestown (3.2-6.8).
5. Bridgeport II has been tested for turf quality in Montana, New York, S. Dakota and Wisconsin. At these locations Bridgeport II had acceptable turf quality and is suitable for lawns in these areas.
6. Breeder seed stock is maintained by West Coast Research Center, Barenbrug USA, Inc., Albany, OR, USA. Breeder seed is stored in environmentally controlled long-term storage facilities at the West Coast Research Center, Albany (USA) and Barenbrug BV Holland, Oosterhout, The Netherlands. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Bridgeport II is accepted by official certifying agencies, Certified Seed will first be offered for sale in Fall 2008.



Drover (BAR FA 1004)

1. Variety name: Drover
Genus: *Festuca*
Experimental designation(s): BAR FA 1004
Date submitted: January 15, 2008
Kind: Tall Fescue
Species: *arundinacea*
2. Drover was developed after two cycles of selection for seed production characteristics. The germplasm used for developing Drover came from Dovey that survived a harsh winter after a severe drought. The breeder seed was first produced in 2001.
3. In space plant nursery in Albany, Oregon the heading date of Drover was April 29th. This is 19 days later than Barcel. The heading date of Drover is similar to Dovey and Fawn. Flag leaf height of Drover (59 cm) is similar to Dovey and Fawn. Flag leaf length of Drover (17.9 cm) is less than Barcel (22 cm) and more than Dovey (15.7 cm). Panicle length of Drover (25.3 cm) is less than Barcel (28.9 cm) and more than Dovey (23.3 cm).
4. The forage yield of Drover (4.86 to 6.57 tons/acre) is higher than Kokanee (2.82 to 4.33 tons/acre) and Resolute (3.19 to 3.5 tons/acre). The forage yield of Drover is similar to Jesup Max-Q. The stand density of Drover (79 to 93%) is higher than Resolute (45 to 49%) and Kokanee (41 to 45%). The stand density of Drover is similar to Select.
5. Drover has been tested in Virginia, Nebraska and New Mexico. It is suitable for hay production in Virginia, Nebraska and New Mexico.
6. Breeder seed of Drover tall fescue is maintained in environmentally controlled long-term storage Barenbrug headquarters in Oosterhout, The Netherlands and at Barenbrug USA West Coast Research Center in Albany Oregon. This variety is limited to one generation of breeder, one of foundation, one of registered, and one of certified. Stand limitations are 3 years for foundation, 3 years for registered, and 8 years for certified. Foundation and Registered seed fields may be harvested for additional 5 years for certified seed production
7. If Drover is accepted by official seed certifying agencies, certified seed will be first offered for sale in Fall 2008.



Cobra 2 (IS-AP 9)

1. Variety Name: Cobra 2
Genus: *Agrostis*
Experimental designation(s): IS-AP 9
Date submitted: January 11, 2008
Kind: Creeping Bentgrass
Species: *palustris*
2. Cobra 2 was developed using four selection cycles. The germplasm used to develop Cobra 2 was derived from the varieties Cobra, L-93, G-2 and A-4. In all cycles the primary selection criteria were density and fineness of leaves. Breeder seed of Cobra 2 was first produced in 2002.
3. When grown as spaced plants in western Oregon locations in 2006 and 2007 the average heading date for Cobra 2 was June 26. This was 9 days later than Crenshaw 8 days later than L-93 and similar to similar to Penncross. The mature plant height of Cobra 2 was 36.1 cm. This was taller than Penncross (31.7 cm) and shorter than L-93 (43.2 cm) and Crenshaw (45.7 cm). The average flag leaf height of Cobra 2 was 20.5 cm. This was higher than Penncross (16.4 cm), similar to L-93 (23.6 cm) and lower than Crenshaw (24.4 cm).
4. The turf quality of Cobra 2 (5.6 to 5.7 on 1-9; 9=ideal turf scale) is similar to Penn A-1 (5.3 to 5.9) and Pennlinks II (4.4. to 5.2) and superior to that of Penncross (2.8 to 4.6). The dollar spot resistance of Cobra 2 (7.3 to 8.0 on 1-9; 9=no disease scale) is not significantly different from that of Penn A-1 (5.3 to 6.7), Pennlinks II (7.3 to 8.3) and Penncross (5.7 to 7.0).
5. Cobra 2 has been tested for turf quality under green conditions at North Brunswick, New Jersey and Dallas, Texas. At these locations Cobra 2 had good turf quality indicating that Cobra 2 is suitable for use on greens in northern New Jersey and northeastern Texas.
6. A supply of Cobra 2 breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by two additional harvests of Certified production. Certified class fields will be limited to five years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Cobra 2 is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



MBH 2 (IS-MBH 2)

1. Variety Name: MBH 2
Genus: *Lolium*
Experimental designation(s): IS-PR MBH 2
Date submitted: January 11, 2008
Kind: Perennial Ryegrass
Species: *perenne*
2. MBH 2 was developed using three selection cycles. The germplasm used to develop MBH 2 traces maternally to the varieties MBH, Attribute, Cutless, Cabo, Essence, Stellar, Windstar and to a New Hampshire eco-type. In all cycles selection criteria included resistance to leaf spot and rust. Breeder seed of MBH 2 was first produced in 2005.
3. When grown as spaced plants in western Oregon in 2006 and 2007 the average heading date for MBH 2 was June 3. This was similar to Gator 3, 7 days earlier later than Manhattan and 21 days earlier than Elka. The mature plant height of MBH 2 was 50.6 cm. This was taller than Elka (38.6 cm) and shorter than Top Hat (68.4 cm) and Manhattan (75.1 cm). The average flag leaf length of MBH 2 was 11.5 cm. This was not significantly different from Elka (11.6 cm), and Gator 3 (11.8 cm) and shorter than Linn (19.3 cm).
4. The turf quality of MBH 2 in western Oregon (5.6 to 4.9 on 1-9; 9=ideal turf scale) is similar to that of Top Hat (5.4 to 5.0) and Churchill (4.7) and superior to that of Derby Supreme (3.8 to 3.2). The rust resistance of MBH 2 (4.7 to 4.5 on 1-9; 9=no disease scale) is similar to that of Churchill (5.0 to 4.3) and not significantly different from that of Gator 3 (6.0 to 5.3) and Top Hat (6.0 to 4.7).
5. MBH 2 has been tested for turf quality under lawn conditions near Philomath, Oregon. At this location MBH 2 had good turf quality indicating that MBH 2 is suitable for use in lawns in western Oregon.
6. A supply of MBH 2 breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by two additional harvests of Certified production. Certified class fields will be limited to five years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If MBH 2 is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



IS-AP 14 (Experimental Designation)

1. Variety Name: N/A
Genus: *Agrostis*
Experimental designation(s): IS-AP 14
Date submitted: January 11, 2008
Kind: Creeping Bentgrass
Species: *palustris*
2. IS-AP 14 was developed using four selection cycles. The germplasm used to develop IS-AP 14 was derived from plants collected in New York and New Jersey. In all cycles the primary selection criteria were density and resistance to leaf diseases. Breeder seed of IS-AP 14 was first produced in 2003.
3. When grown as spaced plants in western Oregon locations in 2006 and 2007 the average heading date for IS-AP 14 was June 17. This was similar to L-93 and Crenshaw and 10 days earlier than Penncross. The mature plant height of IS-AP 14 was 42.2 cm. This was taller than Penncross (31.7 cm) and not significantly different from L-93 (43.2 cm) and Crenshaw (45.7 cm). The average flag leaf height of IS-AP 14 was 28.0 cm. This was higher than Penncross (16.4 cm), L-93 (23.6 cm) and not significantly different than Crenshaw (24.4 cm).
4. The turf quality of IS-AP 14 (5.8 to 7.5 on 1-9; 9=ideal turf scale) is similar to Penneagle II (5.8 to 7.5) and is superior to that of Penncross (3.4. to 6.9) and Seaside (1.9 to 5.9). The color of IS-AP 14 (6.7 to 7.3 on 1-9; 9=dark green scale) is similar to not significantly different from that of Penneagle II (6.3 to 7.0) and Penncross (5.0 to 7.0) and is darker than Seaside (4.7 to 6.0).
5. IS-AP 14 has been tested for turf quality under fairway/tee conditions at North Brunswick, New Jersey and Quebec City, Quebec. At these locations IS-AP 14 had good turf quality indicating that IS-AP 14 is suitable for use on fairways and tees in northern New Jersey and Quebec.
6. A supply of IS-AP 14 breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by two additional harvests of Certified production. Certified class fields will be limited to five years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If IS-AP 14 is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



IS-OG 4 (Experimental Designation)

1. Variety Name: N/A
Genus: *Dactylis*
Experimental designation(s): IS-OG 4
Date submitted: January 11, 2008
Kind: Orchardgrass
Species: *glomerata*
2. IS-OG 4 was developed using two selection cycles. The germplasm used to develop IS-OG 4 traces maternally to the variety Justus. In all cycles the primary selection criteria were medium maturity and high production of foliage. Breeder seed of IS-OG 4 was first produced in 1998.
3. When grown as spaced plants at two western Oregon locations in 2007 the average heading date for IS-OG 4 was May 19. This was 8 days later than Potomac, 7 days later than Endurance and 5 days later than Justus. The mature plant height of IS-OG 4 was 115.7 cm. This was similar to Potomac (117.2 cm) and Endurance (119.5 cm) and taller than Justus (101.8 cm). The average flag leaf length of IS-OG 4 was 27.7 cm. This was not significantly different from that of Potomac (24.5 cm) and Endurance (23.2) and longer than that of Justus (20.3).
4. Forage production of IS-OG 4 near Tangent, Oregon (6.5 to 12.5 tons/acre of dry matter) is higher than Potomac (5.3 to 10.2 tons/acre) and Haymate (5.3 to 10.1 tons/acre) and similar to Frode (6.5 to 11.1 tons/acre). Forage production of IS-OG 4 near Boyd, Kentucky (3.0 to 5.9 tons/acre of dry matter) is similar to Potomac (6.8 to 7.1) Haymate and Frode and superior to that of Rembrandt (5.5. to 5.9) and Masterpiece (5.6). The spring growth of IS-OG 4 near in Oregon and Kentucky (5.3 and 6.5 respectively on 1-9;9=high scale) is higher than Haymate (OR=1.3, KY=4.0) and not significantly different from Potomac (OR=5.7, KY=6.5), or Frode (OR=2.7, KY=6.0).
5. IS-OG 4 has been tested for forage yield in cutting trials near Tangent, Oregon and Boyd, Kentucky. At these locations IS-OG 4 had cut forage yields that were competitive with those of current commercial varieties indicating that IS-OG 4 is suitable for use for hay production in western Oregon and north central Kentucky.
6. A supply of IS-OG 4 breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If IS-OG 4 is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



Nitro (IS-IR 3)

1. Variety Name: Nitro
Genus: *Lolium*
Experimental designation(s): IS-IR 3
Date submitted: January 11, 2008
Kind: Intermediate Ryegrass
Species: *hybridum*
2. Nitro was developed using five selection cycles. The germplasm used to develop Nitro traces maternally to the varieties MBH, PR 8820, Stellar and iQ. The varieties Cabo and Gator II and common annual ryegrass provided pollen during the development of the variety. In all cycles selection criteria included resistance to rust and a growth intermediate between perennial and annual ryegrass. Breeder seed of Nitro was first produced in 2003.
3. When grown as spaced plants in at two locations in western Oregon in 2005 the average heading date for Nitro was June 3. This was Similar to Harbor and Transist and 12 days later than Midway. The mature plant height of Nitro was 88.3 cm. This was not significantly different than Harbor (88.3 cm) and shorter than Transist (106.7 cm) and Midway (122.7 cm). The average flag leaf length of Nitro was 17.7 cm. This was not significantly different from Harbor (17.7 cm), and Transist (18.3 cm) and shorter than Midway (21.3 cm).
4. The turf quality of Nitro in western Oregon (6.0 to 5.6 on 1-9; 9=ideal turf scale) is not significantly different from Harbor (5.9 to 4.3) and Transist (5.8 to 3.4) and is superior to that of Midway (2.4 to 1.1). The color of Nitro (6.3 to 6.0 on 1-9; 9=very dark green scale) is darker than that of Harbor (4.3 to 4.0), Transist (5.0 to 4.7) and Midway (3.0 to 2.7).
5. Nitro has been tested for turf quality under lawn conditions near Philomath, Oregon. At this location Nitro had turf quality equal to or better than other intermediate ryegrass varieties indicating that Nitro is suitable for use in short term lawns in western Oregon.
6. A supply of Nitro breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to one harvests of Foundation/Registered production followed by one additional harvest of Certified production. Certified class fields will be limited to two years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Nitro is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



PR 8821 (IS-PR 256)

1. Variety Name: PR 8821
Genus: *Lolium*
Experimental designation(s): IS-PR 256
Date submitted: January 11, 2008
Kind: Perennial Ryegrass
Species: *perenne*
2. PR 8821 was developed using five selection cycles. The germplasm used to develop PR 8821 traces maternally to the varieties PR 8820, Bargold, Avenue, Gator II and Cutless. In all cycles selection criteria included fine leaf texture and medium green color. Breeder seed of PR 8821 was first produced in 2004.
3. When grown as spaced plants in western Oregon in 2006 and 2007 the average heading date for PR 8821 was June 10. This was 5 days later than Gator 3, 7 days earlier than Manhattan and 14 days earlier than Elka. The mature plant height of PR 8821 was 52.7 cm. This was not significantly different than Manhattan (57.6 cm) and Gator 3 (54.4 cm) and was taller than Elka (38.6 cm). The average flag leaf length of PR 8821 was 13.2 cm. This was not significantly different from Manhattan (15.4 cm), Gator 3 (11.6 cm) or Elka (11.6 cm).
4. The turf quality of PR 8821 in western Oregon (6.5 to 6.3 on 1-9; 9=ideal turf scale) is not significantly different from that of Gator 3 (6.1 to 5.6) and superior to that of Brightstar II (5.7 to 5.4) and Top Hat (5.3 to 5.1). The rust resistance of PR 8821 (7.0 to 5.0 on 1-9; 9=no disease scale) is not significantly different from Gator 3 (5.7 to 5.3) and Brightstar II (4.7 to 5.3) and higher than that of Top Hat (4.3 to 3.3).
5. PR 8821 has been tested for turf quality under lawn conditions near Philomath, Oregon. At this location PR 8821 had good turf quality indicating that PR 8821 is suitable for use in lawns in western Oregon.
6. A supply of PR 8821 breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by two additional harvests of Certified production. Certified class fields will be limited to five years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If PR 8821 is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



Rhizing Star (IS-TF 112)

- Variety Name: Rhizing Star
Genus: *Festuca*
Experimental designation(s): IS-TF 112
Date submitted: January 11, 2008

Kind: Tall Fescue
Species: *arundinacea*
- Rhizing Star was developed using two selection cycles. The germplasm used to develop Rhizing Star traces to the varieties Raptor and Kalahari. In all cycles selection criteria included an aggressively spreading growth habit. Breeder seed of Rhizing Star was first produced in 2004.
- When grown in western Oregon in 2006 and 2007 the average heading date for Rhizing Star was May 16. This was not significantly different from Kentucky 31, 5 days earlier than Bingo and 6 days earlier than Grande. The mature plant height of Rhizing Star was 94.6 cm. This was not significantly different than Bingo (98.2 cm) and Grande (103.2 cm) and shorter than Kentucky 31 (127.9 cm). The average flag leaf length of Rhizing Star was 11.7 cm. This was not significantly different from Bingo (13.4 cm), and shorter than Grande (14.6 cm) and Manhattan (15.5 cm).
- The turf quality of Rhizing Star in western Oregon (5.0 to 4.9 on 1-9; 9=ideal turf scale) is similar to Tomcat (5.4 to 5.0) and Hounddog 5 (4.8 to 4.4) and superior to that of Avalon (3.7 to 3.5). The brown patch resistance of Rhizing Star (6.3 to 4.3 on 1-9; 9=no disease scale) is similar to that of Hounddog 5 (7.0 to 4.7), Tomcat (7.0 to 5.3) and Avalon (5.7 to 3.7).
- Rhizing Star has been tested for turf quality under lawn conditions near Philomath, Oregon. At this location Rhizing Star had adequate turf quality indicating that Rhizing Star is suitable for use in lawns in western Oregon.
- A supply of Rhizing Star breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
- If Rhizing Star is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



Savory (IS-FTF 12)

- Variety Name: Savory
Genus: *Festuca*
Experimental designation(s): IS-FTF 12
Date submitted: January 11, 2008

Kind: Tall fescue
Species: *arundinacea*
- Savory was developed using four selection cycles. The germplasm used to develop Savory traces maternally to the varieties Cigale, Barcel and Siene. In all cycles the primary selection criteria were medium maturity and fine leaf blades. Breeder seed of Savory was first produced in 2003.
- When grown as spaced plants in western Oregon locations in 2006 and 2007 the average heading date for Savory was May 18. This was 5 days later than Martin 2, 12 days later than Fawn and not significantly different than Kentucky 31. The mature plant height of Savory was 119.1 cm. This was shorter than Kentucky 31 (127.9 cm), Martin 2 (131.7 cm) and Fawn (139.9 cm). The average flag leaf length of Savory was 17.8 cm. This was not significantly different from that of Kentucky 31 (15.5 cm), Martin 2 (16.9 cm) and Fawn (17.4 cm).
- Forage production of Savory near Philomath, Oregon (9.0 to 11.1 tons/acre of dry matter) is not significantly different from that of AU Triumph (9.5 to 12.9 tons/acre), Kentucky 31 (9.4 to 11.4 tons/acre) and Martin 2 (9.3 to 10.7 tons/acre). Forage production of Savory near Boyd, Kentucky (2.0 to 7.1 tons/acre of dry matter) is similar to Kentucky 31 (2.4 to 7.7), Martin 2 (2.1 to 6.3 tons/acre) and AU Triumph (2.1 to 6.3 tons/acre). The rust resistance of Savory in western Oregon (6.0 to 7.0 on a 1-9; 9=no disease scale) is higher than that of Au Triumph (2.3 to 2.7) and Martin 2 (3.3 to 6.2) and is similar to Kentucky 31 (5.3 to 6.8).
- Savory has been tested for forage yield in cutting trials near Tangent, Oregon and Boyd, Kentucky. At these locations Savory had forage yields that were competitive with those of current commercial varieties indicating that Savory is suitable for use for hay production in western Oregon and north central Kentucky.
- A supply of Savory breeder seed stock is maintained as seed by DLF International Seeds, Halsey, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
- If Savory is accepted by official seed certifying agencies Certified Seed will first be offered for sale in August 2008.



Crest (TM0102)

1. Variety name: Crest Kind: Timothy
Genus: Phleum Species: pratense
Experimental designation: TM0102
Date submitted: January 15, 2008
2. Crest timothy was developed using phenotypic recurrent selection for vigor, plant health, and regrowth after cutting. In the spring of 2000, 500 plants each of the following varieties/breeding lines were transplanted into a spaced-plant nursery at Buck Creek, IN: TM9701, Talon, Treasure, and TM9704 (2000 total plants). These lines trace to a nursery at Battle Ground, IN comprised of 16.7% each of the following varieties: Clair, Kunpu, Colt, Outlaw, and two FFR breeding lines (81.001: polycross progeny of a clone originally selected from a 4-year old pasture near Evansville, WI, variety unknown; 81.127: polycross progeny of a clone originally selected from a 4-year old pasture near Northfield, MN, variety unknown). During the spring of 2001, approximately 30 plants were identified for late maturity and excellent spring vigor. In August 2001, 16 of these plants were further selected for good plant health and excellent regrowth after cutting. These were transplanted into a 3-rep crossing block at Touchet, WA in August 2001 for the production of syn-1 breeder seed in 2002.
3. Crest is later maturing (mean heading date at Buck Creek, IN = June 10) than Clair (May 26) and Colt (June 7), and earlier than Climax (June 16). It is similar in plant height (107.3 cm) to Clair and Colt, and taller than Climax (99.1 cm). The flag leaf of Crest (16.0 cm) is longer than that of Clair (14.2 cm), and narrower (10.7 mm) than that of Climax (11.9 mm). Its panicle length (12.8 cm) is longer than that of Clair (11.7 cm), and shorter than that of Colt (13.7 cm). Crest was rated similar in color (mean = 5.5; rating: 9 = dark blue-green, 1 = light yellow-green) to Clair, Climax, and Colt.
4. Crest yielded higher than Climax at Breese, IL (3.99 tons dry matter per acre vs. 1.42), 3 years at New Castle, KY (8.36, 5.39, 3.55 vs. 7.46, 4.34, 3.13), Attica, OH (6.56 vs. 5.87), Mt. Joy, PA (4.80 vs. 3.66), 2 years at Franklin, TN (3.67, 3.51 vs. 2.81, 2.97), and Touchet, WA (11.06 vs. 9.92). It yielded less than Talon at Buck Creek, IN (3.24 vs. 3.77), and 2 years at Franklin, TN (4.11, 3.67 vs. 5.18, 4.83); Crest yielded higher than Talon at Mt. Joy, PA (6.59 vs. 5.56). Regrowth of Crest after cutting (5.7, 7.7; rating: 9 = most) was rated greater than that of Climax (4.3, 6.7) in 2 years at Buck Creek, IN. Third year stand persistence (rating: visual estimate of percent ground cover: 9=>90%, 1=<10%) of Crest at 3 locations (mean = 5.6) was similar to that of Clair, Climax, and Talon.
5. Crest has been tested in, is adapted to, and is intended for use as hay in Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Tennessee, and Washington.
6. Recognized classes of seed for Crest are breeder (syn-1), foundation (syn-2 or 3), and certified (syn-2, 3, or 4). Syn-1 breeder seed was produced in isolation at Touchet, WA in 2002 sufficient for the life of the variety, and is maintained in cold storage by FFR Cooperative. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
7. The first certified seed of Crest will be offered for sale in 2008.



OG0203G (Experimental Designation)

1. Variety name: Kind: Orchardgrass
Genus: Dactylis Species: glomerata
Experimental designation: OG0203G
Date submitted: January 15, 2008
2. OG0203G orchardgrass was developed using mass selection for drought and grazing tolerance, followed by one cycle of selection for vigor, stem rust resistance, early-medium maturity, and seed yield potential. Seed of the orchardgrass variety 'Benchmark', bulked remnant polycross progeny seed from a 1993 FFR orchardgrass clonal nursery, and seed of the tall fescue variety 'Select' were bulked in approximately equal parts by weight, and seeded into a 1.5-acre pasture near Milton-Freewater, OR in the fall of 1995. This pasture was well established by spring 1996. It was then divided into approximately 0.5-acre paddocks, and subsequently grazed continuously by horses, sheep, and goats over the next 5 years, without fertilization or irrigation. In May 2001, 198 surviving orchardgrass plants were dug and transplanted to a spaced-plant nursery on FFR's research farm near Touchet, WA. Plants were evaluated for stem rust resistance during the summer and fall of 2001. In spring 2002, the 12 parent clones of OG0203G were selected based on spring vigor, heading date, pollen shed date, and seed yield potential, and placed in an isolated crossing block at Touchet, WA. Breeder seed (syn-1) was harvested in bulk from this block in 2003.
3. OG0203G is later maturing than Benchmark, Potomac, and Pennlate (mean heading date at Buck Creek, IN = May 21, May 15, May 16, and May 17, respectively). It is similar in plant height (105.3cm) to Potomac, Pennlate, and Benchmark. OG0203G has a wider (8.3mm) flag leaf than Benchmark (7.7mm), Potomac (7.9mm), and Pennlate (7.9mm), and a longer panicle (16.8cm) than Benchmark (15.3cm) and Potomac (15.0cm). OG0203G was rated darker green in color (6.0, 8.0; rating: 9=dark blue-green, 1=light green) than Benchmark (4.7, 7.0) in two field trials at Buck Creek, IN.
4. OG0203G yielded less than Benchmark Plus (6.33, 5.55 vs. 7.41, 6.41 tons dry matter per acre) at Buck Creek, IN in 2006 and 2007. It yielded higher than Haymaster (5.74 vs. 4.61) at Breese, IL in 2006, but less than Benchmark Plus and Haymaster (4.86 vs. 6.97 and 6.67) at Mt. Joy, PA in 2006. OG0203G yielded higher than Command (5.87, 6.34 vs. 5.12, 4.87) in 2005-06, and higher than Haymaster (6.34 vs. 4.52) in 2006 at Franklin, TN. It yielded higher than Benchmark Plus at Franklin in 2007 (2.98 vs. 2.49). OG0203G had less regrowth (6.3, 8.0; rating: 9=most regrowth) than Benchmark Plus (7.7, 9.0) at Buck Creek, IN. Third-year stand persistence (visual estimate of percent ground cover; rating: 9>90% stand, 1<10% stand) of OG0203G (mean = 7.4) was similar to that of Benchmark Plus and Haymaster at 3 locations.
5. OG0203G has been tested in, is adapted to, and is intended for use as hay in: Indiana, Illinois, Kentucky, Ohio, Pennsylvania, Tennessee, and Wisconsin.
6. Recognized classes of seed for OG0203G are breeder, foundation, and certified. Syn-1 breeder seed was produced in isolation at Touchet, WA in 2003. FFR Cooperative will maintain sufficient breeder seed for the life of the variety in cold storage. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
7. The first certified seed of OG0203G will be offered for sale in 2009.



Seco (OG0204G)

1. Variety name: Seco Kind: Orchardgrass
Genus: Dactylis Species: glomerata
Experimental designation: OG0204G Date submitted: January 5, 2007
Date accepted: February 15, 2007
Date amendment submitted: January 15, 2008
2. Seco orchardgrass was developed using mass selection for drought and grazing tolerance, followed by one cycle of selection for vigor, stem rust resistance, medium maturity, and seed yield potential. Seed of the orchardgrass variety 'Benchmark', bulked remnant polycross progeny seed from a 1993 FFR orchardgrass clonal nursery, and seed of the tall fescue variety 'Select' were bulked in approximately equal parts by weight, and seeded into a 1.5-acre pasture near Milton-Freewater, OR in the fall of 1995. This pasture was well established by spring 1996. It was then divided into approximately 0.5-acre paddocks, and subsequently grazed continuously by horses, sheep, and goats over the next 5 years, without fertilization or irrigation. In May 2001, 198 surviving orchardgrass plants were dug and transplanted to a spaced-plant nursery on FFR's research farm near Touchet, WA. Plants were evaluated for stem rust resistance during the summer and fall of 2001. In spring 2002, the 12 parent clones of Seco were selected based on spring vigor, heading date, pollen shed date, and seed yield potential, and placed in an isolated crossing block at Touchet, WA. Breeder seed (syn-1) was harvested in bulk from this block in 2003.
3. Seco is later maturing than Benchmark, Potomac, and Pennlate (mean heading date at Buck Creek, IN = May 25, May 15, May 16, and May 17, respectively). It is similar in plant height (106.4cm) to Potomac and Pennlate, and taller than Benchmark (103.7cm). Seco has a longer (28.7cm) and wider (8.5mm) flag leaf, and a longer panicle (20.3cm) than Benchmark (23.0cm, 7.7mm, 15.3cm), Potomac (23.0cm, 7.9mm, 15.0cm), and Pennlate (23.0cm, 7.9mm, 16.1cm). It was rated darker green in color (6.3; rating: 1=light green, 9=dark blue-green) than Benchmark (4.3) and Pennlate (5.0), and similar to Potomac.
4. Seco yielded higher than Benchmark Plus (7.57 vs. 6.87 tons dry matter per acre) at Buck Creek, IN in 2004, and higher than Benchmark Plus and Haymaster at the same location in 2005 (6.69 vs. 5.95 and 6.21). It yielded higher than Benchmark Plus at Mt. Joy, PA in 2005 (6.91 vs. 6.06), and less than Benchmark Plus at Touchet, WA in 2006 (12.60 vs. 14.07). SECO had less regrowth (5.7; rating: 9=most regrowth) than Benchmark Plus (7.7) and Haymaster (6.7) at Buck Creek, IN, and less than Benchmark Plus (7.7 vs. 9.0) at Touchet, WA. Third-year stand persistence (visual estimate of percent ground cover; rating: 9>90% stand, 1<10% stand) of Seco (mean of 2 locations = 6.4) was equal to that of Benchmark Plus (6.4), Haymaster (5.8), Potomac (6.7), and Pennlate (6.8).
5. Seco has been tested in, is adapted to, and is intended for use as hay in Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, Washington, and Wisconsin.
6. Recognized classes of seed for Seco are breeder, foundation, and certified. Syn-1 breeder seed was produced in isolation at Touchet, WA in 2003. FFR Cooperative will maintain sufficient breeder seed for the life of the variety in cold storage. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
7. The first certified seed of Seco will be offered for sale in 2008.



Bruno (OG0205G)

- Variety name: Bruno
Genus: Dactylis
Experimental designation: OG0205G
Date accepted: February 15, 2007
Date amendment submitted: January 15, 2008

Kind: Orchardgrass
Species: glomerata
Date submitted: January 5, 2007
- Bruno orchardgrass was developed using mass selection for drought and grazing tolerance, followed by one cycle of selection for vigor, stem rust resistance, late maturity, and seed yield potential. Seed of the orchardgrass variety 'Benchmark', bulked remnant polycross progeny seed from a 1993 FFR orchardgrass clonal nursery, and seed of the tall fescue variety 'Select' were bulked in approximately equal parts by weight, and seeded into a 1.5-acre pasture near Milton-Freewater, OR in the fall of 1995. This pasture was well established by spring 1996. It was then divided into approximately 0.5-acre paddocks, and subsequently grazed continuously by horses, sheep, and goats over the next 5 years, without fertilization or irrigation. In May 2001, 198 surviving orchardgrass plants were dug and transplanted to a spaced-plant nursery on FFR's research farm near Touchet, WA. Plants were evaluated for stem rust resistance during the summer and fall of 2001. In spring 2002, the 8 parent clones of Bruno were selected based on spring vigor, heading date, pollen shed date, and seed yield potential, and placed in an isolated crossing block at Touchet, WA. Breeder seed (syn-1) was harvested in bulk from this block in 2003.
- Bruno is later maturing than Benchmark, Potomac, and Pennlate (mean heading date at Buck Creek, IN = May 27, May 15, May 16, and May 17, respectively). It is similar in plant height (102.6cm) to Potomac, Pennlate, and Benchmark. Its flag leaf height (74.8cm) is greater than Benchmark (71.6cm) and Potomac (72.5cm), and similar to Pennlate. Bruno has a longer (26.5cm) and wider (8.4mm) flag leaf, and a longer panicle (19.3cm) than Benchmark (23.0cm, 7.7mm, 15.3cm), Potomac (23.0cm, 7.9mm, 15.0cm), and Pennlate (23.0cm, 7.9mm, 16.1cm). It was rated lighter green in color (4.8; rating: 1=light green, 9=dark blue-green) than Potomac (6.8), and similar to Benchmark and Pennlate.
- Bruno yielded higher than Benchmark Plus (7.57, 6.49 vs. 6.87, 5.95 tons dry matter per acre) at Buck Creek, IN in 2004 and 2005, and less than Benchmark Plus at the same location in 2006 (5.80 vs. 7.41). It yielded higher than Haymaster at New Castle, KY in 2004 (9.95 vs. 8.94) and Touchet, WA in 2006 (12.99 vs. 12.13). Bruno yielded less than Benchmark Plus at Franklin, TN (5.07 vs. 6.15) and at Touchet, WA (12.99 vs. 14.07) in 2006. Third-year stand persistence (visual estimate of percent ground cover; rating: 9>90% stand, 1<10% stand) of Bruno (mean of 2 locations = 5.9) was similar to that of Benchmark Plus (6.4), and Haymaster (5.8).
- Bruno has been tested in, is adapted to, and is intended for use as hay in Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, Washington, and Wisconsin.
- Recognized classes of seed for Bruno are breeder, foundation, and certified. Syn-1 breeder seed was produced in isolation at Touchet, WA in 2003. FFR Cooperative will maintain sufficient breeder seed for the life of the variety in cold storage. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
- The first certified seed of Bruno will be offered for sale in 2008.



TF0201 (Experimental Designation)

1. Variety name: Kind: Tall fescue
Genus: Festuca Species: arundinacea
Experimental designation: TF0201
Date submitted: January 15, 2008
2. TF0201 tall fescue was developed using phenotypic recurrent selection for stem rust resistance, vigor, and overall plant health. A population screened for stem rust resistance and tracing to the varieties Tuscany II, Festival, and Select, and several FFR breeding lines tracing to KY-31, and several plant introductions, was established as a spaced-plant nursery near Battle Ground, IN in May 1999. Following evaluation for stem rust resistance, vigor, and plant health, selected clones were transplanted into a spaced-plant nursery at Touchet, WA in spring 2001. These clones were further evaluated for stem rust resistance, vigor, maturity, and seed yield potential. In spring 2002, the 16 parent clones of TF0201 were selected for vigor and heading date, and placed in an isolated crossing block summer 2002 at Touchet, WA. Breeder seed (syn-1) was harvested in bulk from this block in 2003.
3. TF0201 is later maturing than Fawn and KY-31 (mean heading date at Buck Creek, IN = May 23, May 15, and May 16, respectively). It is taller in plant height (110.8cm) than Fawn (104.8cm) and KY-31 (106.0cm). The flag leaf of TF0201 is taller (72.7cm) and wider (6.5mm) than that of Fawn (62.3cm, 5.2mm) and KY-31 (66.1cm, 5.9mm). Its flag leaf is similar in length (16.6cm) to that of Fawn and KY-31. Panicle length of TF0201 (22.5cm) is longer than that of Fawn (19.3cm) and KY-31 (19.8cm). TF0201 was rated darker green in color (7.0, 7.7; rating: 9=darkest green, 1=light yellow-green) than Select (5.0, 6.3) and Enhance (6.0, 6.7) at Buck Creek, IN in 2005 and 2006, respectively.
4. TF0201 yielded higher than Enhance and KY-31 at Buck Creek, IN in 2005 (8.06 vs. 7.15, 6.91 tons dry matter per acre). It yielded higher than Enhance at New Castle, KY in 2005 (6.78 vs. 5.51), and higher than Select and KY-31 at Franklin, TN in 2004 (5.32 vs. 4.53, 3.92). TF0201 yielded higher (8.40) than Enhance (6.83) and KY-31 (7.47) at Mt. Joy, PA in 2005. It yielded higher than KY-31 (6.36 vs. 5.34) at West Salem, WI in 2005, and higher (3.93) than Select (3.60) and KY-31 (3.48) at the same location in 2006. Regrowth of TF0201 was rated greater (7.7, 8.3; rating: 9 = most regrowth) than that of Select (6.0, 6.0) in 2005-2006 at Buck Creek, IN, and similar to that of Enhance. Third-year stand persistence (visual estimate of percent ground cover; rating: 9=>90% stand, 1=<10% stand) of TF0201 (mean = 8.0) was similar to that of Select, Enhance, and KY-31 at 3 locations. Spring vigor of TF0201 (7.7, 8.3; rating: 9=most vigor) was rated greater than that of Enhance (6.7, 7.0) at Buck Creek, IN and Breese, IL, respectively.
5. TF0201 has been tested in, is adapted to, and is intended for use as hay in Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, and Wisconsin.
6. Recognized classes of seed for TF0201 are breeder, foundation, and certified. Syn-1 breeder seed was produced in isolation at Touchet, WA in 2003. FFR Cooperative will maintain sufficient breeder seed for the life of the variety in cold storage. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
7. The first certified seed of TF0201 will be offered for sale in 2009.



TM9701 (Experimental Designation)

1. Variety name: Kind: Timothy
Genus: Phleum Species: pratense
Experimental designation: TM9701
Date submitted: January 15, 2008
2. TM9701 was developed using phenotypic recurrent selection for vigor, regrowth, and plant health, along with progeny testing for forage yield. Twenty plants each of Clair, Kunpu, Colt, Outlaw, and 2 FFR breeding lines were placed in a randomized crossing block at Battle Ground, IN in 1990. Open-pollinated seed was bulk harvested in 1991, and in 1992, 400 plants from this population were established in a spaced-plant nursery at Battle Ground. Following two years of evaluation for maturity, leafiness, spring vigor, and summer regrowth, 113 plants were selected and placed in a replicated polycross block at Battle Ground in 1994. Progeny seed was produced in 1995, and progeny forage yield plots were established at Battle Ground in 1995. The 7 parent clones of TM9701 were selected based on superior progeny forage yield in 1997, and placed in an isolated crossing block at Battle Ground for the production of syn-1 breeder seed in 1998 and 1999.
3. TM9701 is similar in maturity to Clair, (mean heading date at Battle Ground, IN = June 11 and June 10, respectively), and later maturing than Colt (June 18) and Climax (June 21). It is similar in plant height (115.9cm), panicle length (19.0cm), flag leaf length (15.8cm), and flag leaf width (9.2mm) to Colt and Clair. Its mean color rating (4.7; rating: 9=dark blue-green, 1=light yellow-green) was similar to that of Colt, Clair, and Climax.
4. TM9701 yielded higher than Climax in both harvest years at Mt. Vernon, IL (3.04, 8.85 vs. 2.34, 7.55 tons of dry matter per acre). It yielded higher (7.27) than Colt (6.61) and Climax (6.40) at Buck Creek, IN in 2004, and higher than Climax in 2005 (3.54 vs. 3.04). TM9701 yielded less than Clair (2.94 vs. 3.46) at New Castle, KY in 2001, and less than Climax (2.44 vs. 3.02) in 2002; it yielded higher (9.04) than Colt (8.43), Clair (8.24), and Climax (7.46) at New Castle in 2004. TM9701 yielded higher (6.78) than Clair (6.40) and Climax (5.59) at Ithaca, NY. It yielded less (10.68) than Colt (11.92), but more than Clair (9.67) and Climax (9.49) at Attica, OH. It yielded higher (4.72, 4.36) than Colt (4.08, 3.36) and Climax (3.72, 2.81) in 2 harvest years at Franklin, TN. Regrowth (rating: 9 = most regrowth) of TM9701 (7.7, 6.3) was rated superior to that of Climax (3.0, 3.7) in 2 years at Buck Creek, IN. Third-year stand persistence (visual estimate of percent ground cover; rating: 9.0 > 90% stand, 1.0 < 10% stand) of TM9701 (mean = 4.5) was equal to that of Clair and Colt across 5 locations.
5. TM9701 has been tested in, is adapted to, and is intended for use as hay in Illinois, Indiana, Kentucky, Michigan, New York, Ohio, and Tennessee.
6. Recognized classes of seed for TM9701 are breeder (syn-1), foundation (syn-2 or 3), and certified (syn-2,3, or 4). Syn-1 breeder seed was produced in isolation at Battle Ground, IN in 1998 and 1999 sufficient for the life of the variety, and is maintained in cold storage by FFR Cooperative. Foundation fields may be established from breeder seed. Certified fields may be established from breeder or foundation seed. Stands of foundation and certified fields are limited to 3 and 5 years, respectively.
7. The first certified seed of TM9701 will be offered for sale in 2009.



Action (S-22)

1. Variety Name: Action Kind: Kentucky bluegrass
Genus: *Poa* Species: *pratensis*
Experimental Designation: S-22
Date Submitted: January 15, 2008
2. Action' Kentucky bluegrass originated as a selection of plants with a similar phenotype from PI 230132. PI 230132 originated in Iran. Two-hundred plants of PI 230132 were established in a spaced plant field nursery near Post Falls, ID, in 2002. It appeared that PI 230132 was a mixed population of various early to mid-maturity genotypes. A single phenotype was selected for harvest in 2003, and designated 03-1265, based on its similarity to the cultivar, 'Troy' Kentucky bluegrass. Seed collected from these plants was designated S-22, which is the experimental designation for Action. The first Breeder seed was harvested in 2005. The chosen phenotype of Action was selected for upright straw, seed yielding ability, and early maturity.
3. Action can be differentiated from other Kentucky bluegrasses using spaced-plant morphological characteristics. Action is most similar to Troy but can be distinguished from it by its shorter panicle length and flagleaf length. In progeny trials, Action averaged 99% apomictic. Most variants are shorter in culm length and may be inconspicuous in solid-planted production fields.
 - (a) Reproductive maturity was rated 9.0 on May 31 and June 8 in ID and WA. This is similar to Troy's 9.0 rating on May 31 and June 8 in ID and WA, and similar to Touchdown's 8.3 rating on May 31 and 9.0 rating on June 8 in ID, and its 8.0 rating on May 31 and 9.0 rating on June 8 in WA.
 - (b) Action's plant height is similar to Troy but significantly ($p=0.05$) taller than Touchdown. Action's plant height was 82.3 cm in ID and 75.5 cm in WA. Troy was 80.5 cm in ID and 66.8 cm in WA. Touchdown's was 65.6 cm in ID and 61.9 cm in WA.
 - (c) The height from ground to flagleaf on Action is significantly ($p=0.05$) shorter than Troy and significantly ($p=0.05$) taller than Touchdown. Action's flagleaf height was 45.5 cm in ID and 38.3 cm in WA. Touchdown was 37.3 cm in ID and 33.3 cm in WA. Troy was 50.3 cm in ID and 41.3 cm in WA (Tables 1 and 2).
 - (d) Action's flagleaf length of 4.86 cm in ID and 4.19 mm in WA was significantly ($p=0.05$) longer than Touchdown and shorter than Troy. Touchdown's flagleaf length was 2.54 cm in ID and 3.15 cm in WA. Troy was 6.61 cm in ID and 5.03 cm in WA.
 - (e) Action's flagleaf width was similar to both Troy and Touchdown. Action's flagleaf width was 2.96 mm in ID and 2.8 mm in WA. Touchdown was 3.12 mm in ID and 3.90 in WA. Troy was 1.76 mm in ID and 3.12 in WA.
 - (f) Action's inflorescence length was similar to Touchdown but significantly ($p=0.05$) shorter than Troy's. Action's panicle length was 8.95 cm in ID and 8.59 cm in WA. Touchdown was 8.06 cm in ID and 8.53 in WA. Troy was 11.14 cm in ID and 10.20 cm in WA.
 - (g) Action's weight of 100 seed was 0.0323 g in ID and 0.0316 g in WA was similar to Troy but significantly ($p=0.05$) lighter than Touchdown. Troy was 0.0305 g in ID and 0.0303 g in WA. Touchdown was 0.0408 g in ID and 0.0413 g in WA.



Action (S-22)

Continued

4. Action was developed for utility turf use and has moderate turf performance in Idaho.
 - a) Action quality ratings were: 2004: 4.6 2005: 3.9, 2006: 3.7, and 2007: 4.0. All of the preceding are significantly ($p=0.05$) lower quality than Midnight's quality ratings of: 2004: 6.0 2005: 7.0, 2006: 6.1, and 2007: 7.6. Action also has significantly ($p=0.05$) lower quality ratings than Alexa's, which were: 2004: 8.4, 2005: 7.1, 2006: 6.2, and 2007: 7.8.
 - b) Action spring greenup ratings were: 2004: 7.0 2005: 6.0, 2006: 6.0, and 2007: 4.0. Midnight's greenup ratings were: 2004: 6.0 2005: 5.0, 2006: 2.7, and 2007: 7.7. The greenup averages were significantly ($p=0.05$) different. Alexa's greenup ratings were: 2004: 7.0 2005: 4.5, 2006: 2.5, and 2007: 4.1. Alexa's greenup ratings were significantly ($p=0.05$) different from Action's in 2006 and 2007, but Alexa's greenup average was not significantly different from Action's.
5. Action has been tested in and is adapted to Idaho and Washington.
6. A small production block was seeded in 2004 near Mesa, WA. First Breeder seed was harvested in 2005. Seed will be maintained as a breeder nursery. Seed classes recognized are Foundation, Registered, and Certified with stand lengths 3, 3, and 6 years, respectively. Jacklin Seed by Simplot® maintains the Breeder seed.
7. First experimental Certified seed was produced in 2007; pending NGVRB acceptance it will be tagged as Certified.

Camas (S-24)

1. Variety Name: Camas Kind: Kentucky bluegrass
Genus: *Poa* Species: *pratensis*
Experimental Designation: S-24
Date Submitted: January 15, 2008
2. 'Camas' Kentucky bluegrass originated as a selection of plants with a similar phenotype from PI 440608. PI 440608 originated in Kazakhstan. Seven-hundred-and-sixty spaced plants of PI 440608 were established in a spaced-plant field nursery near Post Falls, ID, in 2002. It appeared that PI 440608 was a mixed population of various early to mid-maturity genotypes. A single phenotype was selected for harvest in 2003, and designated 03-0524, based on its similarity to the cultivar, 'Troy' Kentucky bluegrass. Seed collected from these plants was designated S-24, the experimental designation of Camas. First Breeder seed was harvested in 2005. The chosen phenotype of S-24 was selected for upright straw, seed yielding ability, and early maturity.

Among the variants noted in Camas, most have similar botanical and turf characteristics. The primary variant has a shorter culm length and earlier maturity.

3. Camas can be differentiated from other Kentucky bluegrasses using spaced-plant morphological characteristics. Camas is most similar to Troy but can be distinguished by its taller stature and shorter ground to flagleaf distance. In progeny trials, Camas averaged 96.6% apomictic. In commercial seed production, however, apomixis will vary depending upon weather and year. Among the variants noted, most have similar botanical and turf characteristics. Primary variant has a shorter culm length and earlier maturity.
 - a) Reproductive maturity for Camas rated 9.0 on May 31 and June 8 in ID and WA. This is similar to Troy's 9.0 rating on May 31 and June 8 in ID and WA, but significantly has significantly earlier maturity ($p=0.05$) than Midnight's 4.7 rating on May 31 and 6.7 rating on June 8 in ID, and Midnights' 4.6 rating on May 31 and 5.8 rating on June 8 in WA.
 - b) Camas' plant height is significantly ($p=0.05$) taller than Troy and Midnight. Camas' plant height was 87.2 cm in ID and 82.6 cm in WA. Troy was 80.5 cm in ID and 66.8 cm in WA. Midnight was 48.8 cm in ID and 45.3 cm in WA.
 - c) The height from ground to flagleaf on Camas is significantly ($p=0.05$) shorter than Troy and significantly ($p=0.05$) taller than Midnight. Camas' flagleaf height was 40.8 cm in ID and 38.6 cm in WA. Midnight was 25.8 cm in ID and 22.3 cm in WA. Troy was 50.3 cm in ID and 41.3 cm in WA.
 - d) Camas' flagleaf length of 5.57 cm in ID and 6.07 mm in WA is significantly ($p=0.05$) longer than Midnight's 3.03 cm in ID and 2.69 cm in WA. Troy's flagleaf lengths of 6.61 cm in ID and 5.03 cm in WA were not significantly different.
 - e) Camas' flagleaf width was similar to both Troy and Midnight. Camas' flagleaf width was 2.42 mm in ID and 3.18 mm in WA. Midnight was 2.53 mm in ID and 3.19 in WA. Troy was 1.76 mm in ID and 3.12 in WA.
 - f) Camas' inflorescence length is similar to Troy but significantly ($p=0.05$) longer than Midnight. Camas' panicle length was 10.43 cm in ID and 10.55 cm in WA. Midnight was 5.95 cm in ID and 5.62 cm in WA. Troy was 11.14 cm in ID and 10.20 cm in WA.
 - g) Camas' weight of 100 seed of at 0.0359 g in ID and 0.0381 g in WA was similar to Midnight but significantly ($p=0.05$) heavier than Troy. Midnight was 0.0375 g in ID and 0.0378 g in WA. Troy was 0.0305 g in ID and 0.0303 g in WA.



Camas (S-24)

Continued

4. Camas was developed for utility turf use and has moderate turf performance in Idaho.
 - a) Camas quality ratings were: 2004: 3.5 2005: 3.3, 2006: 3.7, and 2007: 4.4. All of the preceding are significantly ($p=0.05$) lower quality than Midnight's quality ratings of: 2004: 6.0 2005: 7.0, 2006: 6.1, and 2007: 7.6. Camas also has significantly ($p=0.05$) lower quality ratings than Langara's which were: 2004: 7.2, 2005: 6.1, 2006: 6.1, and 2007: 4.0.
 - b) Camas spring greenup ratings were: 2004: 5.9 2005: 5.5, 2006: 5.8, and 2007: 5.4. Midnight's greenup ratings were: 2004: 6.0 2005: 5.0, 2006: 2.7, and 2007: 7.7. The greenup averages were not significantly different. Langara's greenup ratings were: 2004: 7.7, 2005: 4.3, 2006: 8.0, and 2007: 3.7. Langara's greenup ratings were significantly ($p=0.05$) different from Camas' in 2006, and Langara's greenup average was significantly ($p=0.05$) different from Camas'.
5. Camas has been tested in and is adapted to Idaho and Washington.
6. A small production block was seeded in 2004 near Mesa, WA, and was designated Breeder seed. First Breeder seed was harvested in 2005. Seed classes recognized are Foundation, Registered, and Certified with stand lengths 3, 3, and 6 years, respectively. Jacklin Seed by Simplot® maintains the Breeder seed.
7. First experimental Certified seed was produced in 2007; pending NGVRB acceptance it will be tagged as Certified.

AST7001 (FMS)

1. Variety name: AST7001 Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): FMS
Date submitted: December 20, 2007
2. AST7001 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop AST7001 was derived from three undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST7001 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST7001 was May 13. This was 3 days later than Rebel II, similar to Silverado and 4 days earlier than Bonsai. The average mature plant height of AST7001 was (65 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of AST7001 was (14.3 cm). This was longer than Bonsai (8.2 cm) and shorter than Rebel II (14.8 cm).
4. AST7001 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST7001 (6.7 to 7.0 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST7001 (6.8 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST7001 (6.1 to 6.2 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
5. AST7001 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST7001 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of AST7001 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If AST7001 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



AST7002 (PT-04)

1. Variety name: AST7002
Genus: Festuca
Experimental designation(s): PT-04
Date submitted: December 20, 2007
Kind: Tall fescue
Species: arundenacea
8. AST7002 was developed using 4 cycles of phenotypic recurrent selection and evaluations of turf plots. The germplasm used to develop AST7002 was derived from Southern Choice II and four undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST7002 was first produced in 2006.
9. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST7002 was May 13. This was 2 days later than Rebel II, similar to Bonanza and 6 days earlier than Bonsai. The average mature plant height of AST7002 was (62.9 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of AST7002 was (11.3 cm). This was longer than Bonsai (8.2 cm) and shorter than Rebel II (14.8 cm).
10. AST7002 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST7002 (6.7 to 7.0 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST7002 (6.8 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST7002 (6.1 to 6.2 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
11. AST7002 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST7002 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
12. A supply of AST7002 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
13. If AST7002 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



AST7003 (ATF-75)

1. Variety name: AST7003 Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): ATF-75
Date submitted: December 20, 2007
2. AST7003 was developed using 5 cycles of phenotypic recurrent selection and evaluations of turf plots. The germplasm used to develop AST7003 was derived from Falcon II and three undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST7003 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST7003 was May 13. This was 6 days later than K-31, similar to Bonanza and 6 days earlier than Bonsai. The average mature plant height of AST7003 was (65.6 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of AST7003 was (11.8 cm). This was longer than Bonsai (8.2 cm) and shorter than Rebel II (14.8 cm).
4. AST7003 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST7003 (6.8 to 7.6 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST7003 (6.5 to 7.7 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST7003 (6.0 to 7.0 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
5. AST7003 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST7003 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of AST7003 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If AST7003 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



AST-1 (Experimental Designation)

- Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): AST-1
Date submitted: December 20, 2007
- AST-1 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop AST-1 was derived from Falcon III, MRF 29 and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST-1 was first produced in 2006.
- When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST-1 was May 14. This was 7 days later than K-31, similar to Bonanza and 5 days earlier than Bonsai. The average mature plant height of AST-1 was (63 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of AST-1 was (9.7 cm). This was shorter than Rebel II (14.8 cm) and Bonanza (16 cm).
- AST-1 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST-1 (6.8 to 7.6 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST-1 (6.5 to 7.7 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST-1 (6.0 to 7.0 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
- AST-1 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST-1 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
- A supply of AST-1 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
- If AST-1 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



AST-3 **(Experimental Designation)**

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): AST-3
Date submitted: December 20, 2007
2. AST-3 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm sources used to develop AST-3 were derived from Falcon III, Desire x Piedmont crosses, PC96 (plant collection near Providence Forge, Virginia in 1996) and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST-3 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST-3 was May 15. This was 4 days later than Rebel II, similar to Silverado and 4 days earlier than Bonsai. The average mature plant height of AST-3 was (68.1 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average panicle length of AST-3 was (17.0 cm). This was shorter than Rebel II (22.9 cm) and longer than Bonsai (13.7 cm).
4. AST-3 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST-3 (6.9 to 7.3 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST-3 (7.0 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST-3 (6.2 to 6.7 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
5. AST-3 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST-3 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of AST-3 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If AST-3 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



AST-4 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): AST-4
Date submitted: December 20, 2007

2. AST-4 was developed using 5 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop AST-4 was derived from Desire, Falcon III x MRF 26 cross and four undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of AST-4 was first produced in 2006.

3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for AST-4 was May 14. This was 3 days later than Rebel II, similar to Silverado and 5 days earlier than Bonsai. The average mature plant height of AST-4 was (64.7 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of AST-4 was (10.8 cm). This was shorter than Rebel II (14.8 cm) and Bonanza (16.0 cm).

4. AST-4 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of AST-4 (6.9 to 7.3 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of AST-4 (7.0 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of AST-4 (6.2 to 6.7 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).

5. AST-4 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations AST-4 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.

6. A supply of AST-4 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.

7. If AST-4 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



BGR-TF1 **(Experimental Designation)**

1. Variety name: Not Yet Named
Genus: Festuca
Experimental designation(s): BGR-TF1
Date submitted: December 20, 2007
Kind: Tall fescue
Species: arundenacea
2. BGR-TF1 was developed using 4 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop BGR-TF1 was derived from six undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of BGR-TF1 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for BGR-TF1 was May 14. This was 3 days later than Rebel II, similar to Silverado and 5 days earlier than Bonsai. The average mature plant height of BGR-TF1 was (63.3 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of BGR-TF1 was (10.1 cm). This was shorter than Rebel II (14.8 cm) and Bonanza (16.0 cm).
4. BGR-TF1 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of BGR-TF1 (7.0 to 7.1 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of BGR-TF1 (6.8 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of BGR-TF1 (6.3 to 6.4 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Bonanza (3.0 to 3.8).
5. BGR-TF1 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations BGR-TF1 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of BGR-TF1 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If BGR-TF1 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



BGR-TF2 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): BGR-TF2
Date submitted: December 20, 2007
2. BGR-TF2 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop BGR-TF2 was derived from Chipper, PC-98 (collected from old turf areas near Providence Forge, Virginia in August 1998) and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of BGR-TF2 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for BGR-TF2 was May 13. This was 2 days later than Rebel II, similar to Bonanza and 6 days earlier than Bonsai. The average mature plant height of BGR-TF2 was (64.5 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of BGR-TF2 was (11.1 cm). This was shorter than Rebel II (14.8 cm) and Bonanza (16.0 cm).
4. BGR-TF2 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of BGR-TF2 (7.0 to 7.1 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of BGR-TF2 (6.8 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of BGR-TF2 (6.3 to 6.4 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Bonanza (3.0 to 3.7).
5. BGR-TF2 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations BGR-TF2 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of BGR-TF2 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If BGR-TF2 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



CS-TF1 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): CS-TF1
Date submitted: December 20, 2007
2. CS-TF1 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop CS-TF1 was derived from Falcon II crossed with Desire tall fescue and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of CS-TF1 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for CS-TF1 was May 13. This was 2 days later than Rebel II, similar to Bonanza and 6 days earlier than Bonsai. The average mature plant height of CS-TF1 was (67.2 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf height of CS-TF1 was (30.4 cm). This was shorter than Bonanza (41.5 cm) and taller than Bonsai (24.0 cm).
4. CS-TF1 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of CS-TF1 (6.6 to 7.5 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of CS-TF1 (6.2 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The leaf texture of CS-TF1 (6.5 to 7.3 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Mini Mustang (3.3 to 4.5).
5. CS-TF1 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations CS-TF1 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of CS-TF1 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If CS-TF1 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



Dorado GH-128

- Variety name: Dorado
Genus: Festuca
Experimental designation(s): GH-128
Date submitted: December 20, 2007

Kind: Tall fescue
Species: arundenacea
- Dorado was developed using 4 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm sources used to develop Dorado was derived from undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of Dorado was first produced in 2005.
- Morphological measurements were taken on spaced plants grown at Forest Grove, Oregon during the 2005-2006 and 2006-2007 seasons. The average heading date for Dorado was May 17. This was 6 days later than K-31, similar to Silverado and 7 days earlier than Bonsai. The average mature plant height of Dorado was (75.6 cm). This was taller than Bonsai (64.8 cm) and shorter than Rebel II (98.5 cm). The average panicle length of Dorado was (20.1 cm). This was longer than Bonsai (15.1 cm) and shorter than Rebel II (25.4 cm).
- Dorado was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of Dorado (7.1 to 7.7 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of Dorado (6.8 to 7.8 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of Dorado (6.5 to 7.2 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
- Dorado has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations Dorado had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
- A supply of Dorado breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
- If Dorado is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



GWTF (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): GWTF
Date submitted: December 20, 2007
2. GWTF was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop GWTF were derived from Desire, PC-98 (collected from old turf areas near Providence Forge, Virginia in August 1998) Falcon III and MRF 29. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of GWTF was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for GWTF was May 12. This was 5 days later than K-31, similar to Rebel II and 7 days earlier than Bonsai. The average mature plant height of GWTF was (66.8 cm). This was similar to Silverado (66 cm) and shorter than Rebel II (82.8 cm). The average flag leaf height of GWTF was (31.2 cm). This was shorter than Bonanza (41.5 cm) and taller than Bonsai (24 cm).
4. GWTF was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of GWTF (6.8 to 7.4 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of GWTF (6.2 to 7.7 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The leaf texture of GWTF (6.3 to 7.7 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Bonanza (2.3 to 3.5).
5. GWTF has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations GWTF had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of GWTF breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If GWTF is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



KZ-1 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): KZ-1
Date submitted: December 20, 2007
2. KZ-1 was developed using 6 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop KZ-1 was derived from PC-96 (plant collection from old turf areas near Providence Forge, Virginia in August 1996) and six undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of KZ-1 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for KZ-1 was May 13. This was 7 days later than K-31, similar to Bonanza and 6 days earlier than Bonsai. The average mature plant height of KZ-1 was (64.9 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf height of KZ-1 was (29.5 cm). This was shorter than Bonanza (41.5 cm) and taller than Bonsai (24 cm).
4. KZ-1 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of KZ-1 (7.0 to 7.6 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of KZ-1 (6.5 to 8.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of KZ-1 (6.2 to 7.0 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Bonanza (3.0 to 3.7). The turf texture of KZ-1 (6.6 to 6.7 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Rebel II (3.3 to 3.7).
5. KZ-1 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations KZ-1 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of KZ-1 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If KZ-1 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



KZ-2 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): KZ-2
Date submitted: December 20, 2007

2. KZ-2 was developed using 4 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm sources used to develop KZ-2 was derived from a Falcon III x MRF 29 cross and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of KZ-2 was first produced in 2006.

3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for KZ-2 was May 14. This was 8 days later than K-31, similar to Bonanza and 5 days earlier than Bonsai. The average mature plant height of KZ-2 was (67.7 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of KZ-2 was (9.9 cm). This was shorter than Bonanza (16 cm) and Rebel II (14.8 cm).

4. KZ-2 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of KZ-2 (7.0 to 7.2 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of KZ-2 (7.0 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of KZ-2 (6.3 to 7.1 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Bonanza (3.0 to 3.7).

5. KZ-2 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations KZ-2 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.

6. A supply of KZ-2 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.

7. If KZ-2 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



LR-TF1 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): LR-TF1
Date submitted: December 20, 2007
2. LR-TF1 was developed using 3 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm sources used to develop LR-TF1 was derived from PC98 (plant collection near Providence Forge, Virginia in 1998), Falcon II, Desire and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of LR-TF1 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for LR-TF1 was May 12. This was 6 days later than K-31, similar to Rebel II and 2 days earlier than Silverado. The average mature plant height of LR-TF1 was (68.3 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average panicle length of LR-TF1 was (17.5 cm). This was shorter than Rebel II (43.4 cm) and longer than Bonsai (13.7 cm).
4. LR-TF1 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of LR-TF1 (6.4 to 6.5 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Rebel II (3.8 to 4.0). The genetic color of LR-TF1 (6.2 to 6.7 on 1-9; 9=darkest green) is darker than Silverado (2.7 to 4.5) and Mini Mustang (3.3 to 5.0). The turf density of LR-TF1 (5.3 to 6.0 on 1-9: 9=very dense) is denser than Silverado (2.8 to 4.3) and Bonanza (2.3 to 3.5).
5. LR-TF1 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations LR-TF1 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of LR-TF1 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If LR-TF1 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



LR-TF2 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): LR-TF2
Date submitted: December 20, 2007
2. LR-TF2 was developed using 4 cycles of phenotypic recurrent selection and turf performance testing. The germplasm used to develop LR-TF2 was derived from Piedmont, Southern Choice II and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of LR-TF2 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for LR-TF2 was May 12. This was 6 days later than K-31, similar to Rebel II and 2 days earlier than Silverado. The average mature plant height of LR-TF2 was (66.5 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf length of LR-TF2 was (10.4cm). This was shorter than Rebel II (11.6 cm) and longer than Bonanza (16.0 cm).
4. LR-TF2 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of LR-TF2 (6.7 to 6.8 on 1-9: 9=ideal turf) is superior to Silverado (3.8 to 4.8) and Rebel II (3.8 to 4.0). The genetic color of LR-TF2 (6.3 to 7.0 on 1-9; 9=darkest green) is darker than Silverado (2.7 to 4.5) and Mini Mustang (3.3 to 5.0). The turf density of LR-TF2 (5.7 to 6.1 on 1-9: 9=very dense) is similar to Falcon 4 and denser than Silverado (2.8 to 4.3).
5. LR-TF2 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations LR-TF2 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of LR-TF2 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If LR-TF2 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



LS03 (Experimental Designation)

1. Variety name: Not Yet Named
Genus: Festuca
Experimental designation(s): LS03
Date submitted: December 20, 2007

Kind: Tall fescue
Species: arundenacea
2. LS03 was developed using 4 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop LS03 was derived from six undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of LS03 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for LS03 was May 14. This was 3 days later than Rebel II, similar to Silverado and 5 days earlier than Bonsai. The average mature plant height of LS03 was (63.6 cm). This was similar to Bonsai (64.1 cm) and shorter than Rebel II (82.8 cm). The average flag leaf length of LS03 was (11.3 cm). This was shorter than Rebel II (14.8 cm) and longer than Bonsai (8.2 cm).
4. LS03 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of LS03 (6.6 to 7.2 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Rebel II (3.8 to 4.0). The genetic color of LS03 (5.8 to 7.0 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of LS03 (5.0 to 6.1 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Rebel II (3.5 to 3.8).
5. LS03 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations LS03 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of LS03 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If LS03 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



LS06 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): LS06
Date submitted: December 20, 2007
2. LS06 was developed using 4 cycles of phenotypic recurrent selection and multiple turf performance testing. The germplasm used to develop LS06 was derived from five undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of LS06 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for LS06 was May 14. This was 3 days later than Rebel II, similar to Silverado and 5 days earlier than Bonsai. The average mature plant height of LS06 was (65.1 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average panicle length of LS06 was (17.0 cm). This was shorter than Rebel II (22.9 cm) and longer than Bonsai (13.7 cm).
4. LS06 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of LS06 (6.7 to 7.2 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Rebel II (3.8 to 4.0). The genetic color of LS06 (6.5 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Rebel II (3.3 to 3.7). The leaf texture of LS06 (5.0 to 6.1 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Mini Mustang (3.3 to 4.5).
5. LS06 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations LS06 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of LS06 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If LS06 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



LS11 (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): LS11
Date submitted: December 20, 2007
2. LS11 was developed using 3 cycles of phenotypic recurrent selection and turf performance testing. The germplasm used to develop LS11 was derived from three undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of LS11 was first produced in 2006.
3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for LS11 was May 15. This was 3 days later than Rebel II, similar to Silverado and 3 days earlier than Bonsai. The average mature plant height of LS11 was (65.6 cm). This was similar to Silverado (66 cm) and shorter than K-31 (101.9 cm). The average flag leaf height of LS11 was (29.5 cm). This was shorter than Bonanza (41.5 cm) and taller than Bonsai (24 cm).
4. LS11 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of LS11 (7.1 to 7.2 on 1-9: 9=ideal turf) is superior to Falcon 4 (6.2 to 6.4) and Bonsai I (4.8 to 6.1). The genetic color of LS11 (6.8 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Rebel II (3.3 to 3.7). The turf density of LS11 (6.5 to 7.5 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).). The turf texture of LS11 (6.5 to 7.2 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Mini Mustang (3.3 to 4.5).
5. LS11 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations LS11 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of LS11 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If LS11 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



MPE (Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
 Genus: Festuca Species: arundenacea
 Experimental designation(s): MPE
 Date submitted: December 20, 2007
2. MPE was developed using 4 cycles of phenotypic recurrent selection and turf performance testing. The germplasm used to develop MPE was derived from MRF 26, Southern Choice II, MRF 29 and three undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of MPE was first produced in 2005.
3. Morphological measurements were taken on spaced plants grown at Forest Grove, Oregon during the 2005-2006 and 2006-2007 seasons. The average heading date for MPE was May 11. This was 4 days later than Rebel II, similar to Silverado and 5 days earlier than Bonsai. The average mature plant height of MPE was (72.9 cm). This was taller than Bonsai (64.8 cm) and shorter than Bonanza (95.7 cm). The average flag leaf length of MPE was (12.5 cm). This was longer than Bonsai (5.4 cm) and shorter than Bonanza (18.2 cm).
4. MPE was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of MPE (7.1 to 7.7 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of MPE (6.5 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of MPE (6.3 to 6.6 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
5. MPE has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations MPE had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of MPE breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If MPE is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



RNP **(Experimental Designation)**

1. Variety name: Not Yet Named
Genus: Festuca
Experimental designation(s): RNP
Date submitted: December 20, 2007
Kind: Tall fescue
Species: arundenacea

2. RNP was developed using 4 cycles of phenotypic recurrent selection and turf performance testing. The germplasm used to develop RNP was derived from Chipper, PC-96 (collected from old turf areas near Providence Forge, Virginia in August 1996) and two undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of RNP was first produced in 2006.

3. When grown as spaced plants at 2 western Oregon locations in 2006-2007 (Forest Grove and Albany). The average heading date for RNP was May 13. This was 2 days later than Rebel II, similar to Silverado and 6 days earlier than Bonsai. The average mature plant height of RNP was (64.9 cm). This was similar to Bonsai (64.1 cm) and shorter than K-31 (101.9 cm). The average flag leaf height of RNP was (29.0 cm). This was shorter than Bonanza (41.5 cm) and taller than Bonsai (24 cm). The average flag leaf length of RNP was (11.4 cm). This was shorter than Bonanza (16.0 cm) and longer than Bonsai (8.2 cm).

4. RNP was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of RNP (7.1 to 7.2 on 1-9: 9=ideal turf) is superior to Falcon 4 (6.2 to 6.4) and Bonsai I (4.8 to 6.1). The genetic color of RNP (6.8 to 7.5 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Rebel II (3.3 to 3.7). The turf density of RNP (6.5 to 7.5 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8). The turf texture of RNP (6.5 to 7.2 on 1-9: 9=very fine) is finer than Silverado (2.8 to 4.3) and Mini Mustang (3.3 to 4.5).

5. RNP has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations RNP had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.

6. A supply of RNP breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.

7. If RNP is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



SC-07

(Experimental Designation)

1. Variety name: Not Yet Named Kind: Tall fescue
Genus: Festuca Species: arundenacea
Experimental designation(s): SC-07
Date submitted: December 20, 2007
2. SC-07 was developed using 4 cycles of phenotypic recurrent selection and multiple years of turf performance testing. The germplasm used to develop SC-07 was derived from Desire, Falcon III, Piedmont, PC-98 (collected from old turf areas near Providence Forge, Virginia August 1998) and three undeveloped experimental germplasm sources collected from old turf plots near Lewisburg, Pennsylvania. In all cycles, the primary selection criteria were for turf quality, dark green color, fine leaf texture and maximum turf density. Breeder seed of SC-07 was first produced in 2005.
3. Morphological measurements were taken on spaced plants grown at Forest Grove, Oregon during the 2005-2006 and 2006-2007 seasons. The average heading date for SC-07 was May 9. This was 1 day later than K-31, similar to Rebel II and 4 days earlier than Silverado. The average mature plant height of SC-07 was (87.9 cm). This was taller than Bonsai (64.8 cm) and shorter than K-31 (108.4 cm). The average flag leaf length of SC-07 was (12.5 cm). This was longer than Bonsai (5.4 cm) and shorter than Bonanza (18.2 cm).
4. SC-07 was tested for turf performance under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. The turf quality of SC-07 (6.9 to 7.2 on 1-9: 9=ideal turf) is superior to Bonsai I (4.8 to 6.1) and Silverado (3.8 to 4.8). The genetic color of SC-07 (6.7 to 7.2 on 1-9; 9=darkest green) is darker than Bonsai (4.3 to 5.8) and Mini Mustang (3.3 to 5.0). The turf density of SC-07 (6.0 to 6.8 on 1-9: 9=very dense) is denser than Silverado (2.7 to 4.8) and Mini Mustang (2.7 to 3.8).
5. SC-07 has been tested for turf quality under lawn conditions near Forest Grove, Oregon and Lewisburg, Pennsylvania. At these locations SC-07 had good turf quality indicating that it is suitable for use in lawns in western Oregon and central Pennsylvania.
6. A supply of SC-07 breeder seed will be kept in cold storage by McCarthy Research Farm LLC located in Verboort, Oregon. Foundation stands may only be planted from Breeder Seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Registered or Foundation Seed. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to four years of seed production. Additional years of seed production may be approved by the breeder or individual designated by the breeder.
7. If SC-07 is accepted by official certifying agencies, Certified Seed will first be offered for sale in August 2008.



ATF1203 (Experimental Designation)

1. Variety name: Kind: Tall Fescue
Genus: *Festuca* Species: *arundinacea*
Experimental designation(s): ATF1203
Date submitted: December 15, 2007
2. ATF1203 was developed from many cycles of genotypic and phenotypic selection, followed by one cycle of selection for extended roots, during the first three months of growth. The germplasm used to develop ATF1203 was obtained from Rutgers University and trace to plants related to Rebel and ecotypes collected from old turf of the Mid-Atlantic and southern regions of the United States. Breeder seed was first produced in 2005.
3. When grown as spaced plants at a western Oregon location in 2006 and 2007, the average heading date for ATF1203 was 46.23 days after March 1. This is equal to Crewcut (48.00) and Rebel II (45.27), but 3.93 days later than KY-31 (42.30). The mature plant height of ATF1203 is 105.33 cm. This is less than Crewcut (111.37 cm), Rebel II (122.90 cm), and KY-31 (142.77 cm). The panicle length of ATF1203 is 77.60 cm. This is equal to Crewcut (79.73 cm), but shorter than Rebel II (88.07 cm) and KY-31 (95.00 cm). The flag leaf blade length of ATF1203 is 41.13 cm. This is equal to Crewcut (41.87 cm), but shorter than Rebel II (50.60 cm) and KY-31 (54.67 cm). ATF1203 has a flag leaf height of 53.53 cm. This is shorter than Crewcut (57.37 cm), Rebel II (65.57 cm) and KY-31 (83.00 cm). All data is based on a two year average.
4. The average turf quality of ATF1203 near Albany, OR was 6.20 (1-9 scale; 9=ideal turf) which is equal to Rebel IV (6.30) and Southern Comfort (5.75). ATF1203 exhibits better resistance to the turfgrass pathogen brown patch (*Rhizoctonia solani*) (5.55 and 7.67; 1-9 scale; 9=most resistant) than KY-31 (3.56 and 4.67) in New Brunswick, NJ and Rolsville, NC respectively. All data is based on a two year average.
5. ATF1203 has been tested for turf quality under lawn conditions near Fayetteville, AR, Camarillo, CA, Salem, NJ, New Brunswick, NJ, Rolesville, NC, Urbana, IL Knoxville, TN and Lexington, KY. The data indicates that ATF1203 is suitable for turf use in these areas.
6. A supply of ATF1203 breeder seed is maintained as seed by NexGen Turf Research, Albany, Oregon. Foundation fields may only be planted from breeder seed. Registered class may be established from either Foundation or Breeder seed. Seed production of Foundation and Registered class will be limited to three years. Seed production of Certified class will be limited to five years. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If ATF1203 is accepted by official seed certifying agencies, Certified seed will first be offered for sale September, 2008.



Edison (LF-110, OSC-110)

1. Variety name: Edison Kind: Perennial Ryegrass
Genus: Lolium Species: perenne
Experimental designation(s): LF-110, OSC-110
Date submitted:
2. The variety is an advanced generation multi clone synthetic derived from over 200 clonal accessions made during the late fall and winter along rural roadsides in portions of Polk and Yamhill Counties of Oregon. Plants were selected based upon ability to survive in harsh roadside conditions, genetic color, winter disease tolerance and overall appearance. All developmental work was done in Aurora, OR. Breeder seed was first produced in 2004.
3. Edison is a medium height (67.7 cm avg.), medium-dark colored, medium-textured perennial ryegrass. It forms a dense and attractive permanent turf in Western Oregon. Its growth habit is semi-upright and it has a medium maturity date. Its mature plant height (67.7 cm) is similar to Refine (69.7 cm avg.) and Pinnacle (67.4 cm avg.). Edison's flag leaf height (32.1 cm avg.) is similar to Refine (31.1 cm) and significantly lower than Pinnacle (35.3 cm). Average flag leaf length (13.7 cm) of Edison is similar to Refine (14.0 cm) and significantly shorter than Pinnacle (15.5 cm).
4. Overall turf quality of Edison (7.2 – 7.3 on 1-9; 9=ideal turf scale) is similar to Refine (7.3 – 7.4) and significantly superior to Pinnacle (6.2 – 6.3). The genetic color of Edison (7.0 – 7.2 on 1-9; 9=very dark scale) is similar to Refine (7.0 – 7.2) and darker than Pinnacle (6.0 – 6.1).
5. Edison has been tested for turf quality under normal maintenance conditions in both Aurora, OR and Suver, OR. At both locations, Edison had good turf quality indicating that it is very well adapted for use in Western Oregon wherever perennial ryegrass can be used for permanent turf.
6. A supply of Breeder seed is maintained in cold storage by Olsen Agriculture Co., Inc. Foundation seed production stands may only be planted from Breeder seed. Registered seed production stands may be planted from either Breeder seed or Foundation seed. Certified seed production fields may be planted from Breeder, Foundation, or Registered seeds. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by three additional harvests of Certified production. Certified class fields will be limited to five years of seed production.
7. Certified seed will be available in August, 2008, if Edison is accepted by official seed certifying agencies.



Galileo (LF-116, OSC-116)

1. Variety name: Galileo
Genus: Lolium
Experimental designation(s): LF-116, OSC-116
Date submitted: Kind: Perennial Ryegrass
Species: perenne
2. The variety is an advanced generation multi clone synthetic derived from clonal accessions made during the 2001 out of the breeder's lawn in Aurora, OR. Over a period of several years, surplus and remnant seed from various polycross breeding sources had been broadcast over the lawn. Eventually a number of very attractive individual plants were clearly recognizable due to their improved color, density, foliar health, and fine texture. All developmental work on this variety was done in Aurora, OR. Breeder seed was first produced in 2004.
3. Galileo is a medium height (66.0 cm avg.), very dark colored, medium-textured perennial ryegrass. It forms a dense and attractive permanent turf in Western Oregon. Its growth habit is semi-upright and it has a medium-late maturity date. Its mature plant height is significantly shorter than Refine (69.7 cm avg.) and similar to Pinnacle (67.4 cm avg.). Galileo's flag leaf height (29.9 cm avg.) is similar to Refine (31.1 cm) and significantly lower than Pinnacle (35.3 cm). Average flag leaf length (11.7 cm) of Galileo is significantly shorter than both Refine (14.0 cm) and Pinnacle (15.5 cm).
4. Overall turf quality of Galileo (8.3 – 8.5 on 1-9; 9=ideal turf scale) significantly superior to Pinnacle (6.2 – 6.3) and Refine 7.3 – 7.4) The genetic color of Galileo (8.0 – 8.5 on 1-9: 9=very dark scale) is significantly darker than both Pinnacle (6.0 – 6.1) and Refine (7.0 – 7.2).
5. Galileo has been test for turf quality under normal maintenance conditions in both Aurora, OR and Suver, OR. At both locations, Galileo had excellent turf quality indicating that it is very well adapted for use in Western Oregon wherever perennial ryegrass can be used for permanent turf.
6. A supply of Breeder seed is maintained in cold storage by Olsen Agriculture Co., Inc. Foundation seed production stands may only be planted from Breeder seed. Registered seed production stands may be planted from either Breeder seed or Foundation seed. Certified seed production fields may be planted from Breeder, Foundation, or Registered seeds.. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by three additional harvests of Certified production. Certified class fields will be limited to five years of seed production.
7. Certified seed will be available in August, 2008, if Galileo is accepted by official seed certifying agencies.



Michelangelo (LF-109, OSC-109)

1. Variety name: Michelangelo
Genus: Lolium
Experimental designation(s): LF-109, OSC-109
Date submitted: Kind: Perennial Ryegrass
Species: perenne
2. The variety is an advanced generation synthetic derived from 93 clones collected along roadsides in northern Marion County, Oregon during late fall and winter 1998-99. Clones were selected based upon fine texture, dark color, winter disease tolerance and ability to survive in harsh roadside conditions. All developmental work on this variety was done in Aurora, Oregon. Breeder seed was first produced in July, 2004.
3. Michelangelo is a medium height (65.9 cm avg.), very dark colored, fine-textured perennial ryegrass. It forms a very dense and attractive permanent turf in Western Oregon. Its growth habit is semi-upright and it has a medium-late maturity date. Its mature plant height is significantly short than Refine (69.7 cm avg.) and similar to Pinnacle (67.4 cm avg.). Michelangelo's flag leaf height (29.9 cm avg.) is similar to Refine (31.1 cm) and significantly lower than Pinnacle (35.3 cm). Average flag leaf length (11.4 cm) of Michelangelo is significantly shorter than both Refine (14.0 cm) and Pinnacle (15.5 cm).
4. Overall turf quality of Michelangelo (8.5 – 8.8 on 1-9; 9=ideal turf scale) is significantly superior to Refine (7.3 – 7.4) and Pinnacle (6.2 – 6.3). The genetic color of Michelangelo (8.0 – 8.5 on 1-9: 9=very dark scale) is also significantly darker than that of Refine (7.0 – 7.2) and Pinnacle 6.0 – 6.1).
5. Michelangelo has been test for turf quality under normal maintenance conditions in both Aurora, OR and Suver, OR. At both locations, Michelangelo had very good turf quality indicating that it is very well adapted for use in Western Oregon wherever perennial ryegrass can be used for permanent turf.
6. A supply of Breeder seed is maintained in cold storage by Olsen Agriculture Co., Inc. Foundation seed production stands may only be planted from Breeder seed. Registered seed production stands may be planted from either Breeder seed or Foundation seed. Certified seed production fields may be planted from Breeder, Foundation, or Registered seeds. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by three additional harvests of Certified production. Certified class fields will be limited to five years of seed production.
7. Certified seed will be available in August, 2008, if Michelangelo is accepted by official seed certifying agencies.



Newton (LF-112, OSC-112)

1. Variety name: Newton
Genus: Lolium
Experimental designation(s): LF-112, OSC-112
Date submitted: Kind: Perennial Ryegrass
Species: perenne
2. This variety is an advanced generation synthetic derived from superior clonal selections in approximate percentages out of the varieties Flash II (40%), LF-124 (30%), Manhattan III (15%), and Pearl II (15%). Breeder seed was first produced in July, 2004.
3. Newton is a medium height (66.4 cm avg.), dark colored, fine-textured perennial ryegrass. It forms a dense and attractive permanent turf in Western Oregon. Its growth habit is semi-upright and it has a medium-late maturity date. Its mature plant height is significantly shorter than Refine (69.7 cm avg.) and similar to Pinnacle (67.4 cm avg.). Newton's flag leaf height (31.6 cm avg.) is similar to Refine (31.1 cm) and significantly lower than Pinnacle (35.3 cm). Average flag leaf length (12.7 cm) of Newton is significantly shorter than both Refine (14.0 cm) and Pinnacle (15.5 cm).
4. Overall turf quality of Newton (7.8 – 8.0 on 1-9; 9=ideal turf scale) is significantly superior to Pinnacle (6.2 – 6.3) and Refine (7.3 - 7.4) The genetic color of Newton (7.5 – 8.2 on 1-9: 9=very dark scale) is darker than both Pinnacle (6.0 – 6.1) and Refine (7.0 – 7.2).
5. Newton has been test for turf quality under normal maintenance conditions in both Aurora, OR and Suver, OR. At both locations, Edison had very good turf quality indicating that it is very well adapted for use in Western Oregon wherever perennial ryegrass can be used for permanent turf.
6. A supply of Breeder seed is maintained in cold storage by Olsen Agriculture Co., Inc. Foundation seed production stands may only be planted from Breeder seed. Registered seed production stands may be planted from either Breeder seed or Foundation seed. Certified seed production fields may be planted from Breeder, Foundation, or Registered seeds. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by three additional harvests of Certified production. Certified class fields will be limited to five years of seed production.
7. Certified seed will be available in August, 2008, if Newton is accepted by official seed certifying agencies.



Whitney (LF-108, OSC-108)

1. Variety name: Whitney
Genus: Lolium
Experimental designation(s): LF-108, OSC-108
Date submitted
Kind: Perennial Ryegrass
Species: perenne
2. Whitney was developed as an advanced multi-clone synthetic derived from selected clones out of a mature seed production field of High Life (35%), and experimental line called VD-6 20%, a further experimental line, VD-98 (20%), and out of a mature production field of Ecologic (25%). All developmental work was done in Aurora, OR. Breeder seed was first produced in July, 2004.
3. Whitney is a medium height (66.4 cm avg.), dark colored, fine-textured perennial ryegrass. It forms a dense and attractive permanent turf in Western Oregon. Its growth habit is semi-upright and it has a medium-late maturity date. Its mature plant height is similar to both Refine (69.7 cm avg.) and Pinnacle (67.4 cm avg.). Whitney's flag leaf height (31.2 cm avg.) is similar to Refine (31.1 cm) and significantly lower than Pinnacle (35.3 cm). Average flag leaf length (12.8 cm) of Whitney is significantly shorter than both Refine (14.0 cm) and Pinnacle (15.5 cm).
4. Overall turf quality of Whitney (7.9 – 8.2 on 1-9; 9=ideal turf scale) is superior to Refine (7.3 – 7.4) and Pinnacle (6.2 – 6.3). The genetic color of Whitney (7.5 – 8.2 on 1-9: 9=very dark scale) is darker than that of Refine (7.0 – 7.2) and Pinnacle (6.0 – 6.1).
5. Whitney has been test for turf quality under normal maintenance conditions in both Aurora, OR and Suver, OR. At both locations, Whitney had very good turf quality indicating that it is very well adapted for use in Western Oregon wherever perennial ryegrass can be used for permanent turf.
6. A supply of Breeder seed is maintained in cold storage by Olsen Agriculture Co., Inc. Foundation seed production stands may only be planted from Breeder seed. Registered seed production stands may be planted from either Breeder seed or Foundation seed. Certified seed production fields may be planted from Breeder, Foundation, or Registered seeds.. Foundation and Registered class fields will be limited to two harvests of Foundation/Registered production followed by three additional harvests of Certified production. Certified class fields will be limited to five years of seed production.
7. Certified seed will be available in August, 2008, if Whitney is accepted by official seed certifying agencies.



Brea (04-BRE)

1. Variety Name: Brea Kind: Perennial Ryegrass
Genus: Lolium Species: perenne
Experimental designation: 04-BRE
Date submitted: January 2, 2008
2. Brea perennial ryegrass is a three clone cross with two cycles of selection. Genetic contribution came from selections from Radiant (21%), Pennant II (21%), collections from old turfs in OR, IA, IL, MO, and NJ (21%), Palmer III (10.5%) Pirouette (10.5%), Brightstar (5.3%), Pace (5.3%), and Barlennium (5.3%) ryegrasses. Primary selection criteria included dark winter color, lower crown height, finer leaf texture, and freedom from foliar disease. Breeder seed of Brea was first produced in 2004.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Brea was May 22, similar to Pinnacle and 10 days later than Linn. Brea (68.3 cm) was shorter in mature plant height than Pinnacle (77.1) and Linn (87.8). Brea (3.0 mm) was narrower in flag leaf width than Pinnacle (3.4) and Linn (4.6). Brea (19.4 cm) had a shorter spike length than Pinnacle (20.4), and was longer than Linn (18.4)
4. In the 2004 NTEP trials, Brea (5.4, 1-9, 9=highest) had turf quality under "Schedule B" similar to Palmer III (5.4), but rated higher than Pinnacle (4.4) and Linn (2.6) Brea (6.2) had a spring density rating similar to Palmer III (6.3) but was denser than Pinnacle (4.8) and Linn (4.0). Brea (7.3) was more resistant to gray leaf spot than Palmer III (5.3), Pinnacle (3.3), and Linn (2.7). Brea (6.5) was darker than Palmer III (5.6), Pinnacle (4.0) and Linn (3.0)
5. Brea has been tested for turf quality and was within or very close to the lsd. value of the top varieties in Michigan, New Jersey, Oregon, Virginia, Washington, and Wisconsin. This would indicate that Brea is adapted for turf use in those areas.
6. Breeder seed of Brea perennial ryegrass is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Brea is accepted by AOSCA, certified seed will be first offered for sale in 2008.



Chancellor (03-CHFSHHY)

1. Variety Name: Chancellor Kind: Chewings Fescue
Genus: Festuca Species: rubra commutata
Experimental designation: 03-CHFSHHY
Date submitted: January 2, 2008
2. Chancellor chewings fescue is the result of a polycross between two plants collected in Oregon, and two plants selected from each of the following: Tiffany, Brittany, Banner II, and Bridgeport chewings fescues, with each cultivar contributing 20% and the collection 20%. Two cycles of selection were performed, with selection criteria including vigor, dark green color, small/dense crowns, freedom from foliar disease, short plant height, and potential seed yield. Breeder seed was declared in the fall of 2003.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Chancellor was May 3, six days earlier than Jamestown and similar to Bridgeport. Chancellor (82.9 cm) was shorter in mature plant height than Jamestown (91.7) and Bridgeport (100.1). Chancellor (4.9 cm) was similar in flag leaf length to Jamestown (5.3) and shorter than Bridgeport (6.0). Chancellor (15.5 cm) had a longer panicle length than Jamestown (13.3) and was similar to Bridgeport (16.0)
4. In turf trials near Lebanon, OR in 2005 and 2006, Chancellor (7.1, 0-9 scale, 9=ideal) had a higher turf quality than Brittany (6.1), Bridgeport (5.6), and Cascade (3.5). Chancellor (7.5) had darker green color than Brittany (6.2), Bridgeport (6.0), and Cascade (3.0). Chancellor (7.0) had higher resistance to leaf spot than Brittany (6.0), Bridgeport (5.2), and Cascade (4.0). Chancellor (7.0) displayed similar denser turf to Brittany (5.8), Bridgeport (5.8) and Cascade (4.2).
5. Chancellor chewings fescue has been tested for turf quality in Oregon. With superior turf quality ratings in comparison to the check varieties, Chancellor is adapted for turf use in Oregon.
6. Breeder seed of Chancellor chewings fescue is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Chancellor is accepted by AOSCA, certified seed will be first offered for sale in 2008.



Dall (04-SHF)

1. Variety Name: Dall Kind: Sheep Fescue
Genus: Festuca Species: ovina
Experimental designation: 04-SHF
Date submitted: January 2, 2008
2. Dall sheep fescue is the result of a cross between five plants collected in Oregon, Bighorn, and an unknown (VNS) hard fescue, with each contributing 14.9% to the cultivar. Three cycles of recurrent phenotypic selection were performed. Selection criteria included darker gray/green color, denser crowns, freedom from foliar disease, medium crown size, and potential seed yield. Breeder seed was declared in the fall of 2004.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Dall was April 30, two days earlier than Bighorn. Dall (69.7 cm) was shorter in mature plant height than Bighorn (73.2). Dall (6.1 cm) was similar in flag leaf length to Bighorn (6.2). Dall (16.8 cm) had a longer panicle length than Bighorn (15.4).
4. In turf trials near Lebanon, OR in 2005 and 2006, Dall (5.0, 0-9 scale, 9=ideal) had a higher turf quality than Bighorn (4.4). Dall (5.2) had similar color to Bighorn (4.8). Dall (7.5) had higher resistance to leaf spot than Bighorn (6.0). Dall (4.5) displayed denser turf than Bighorn (3.8).
5. Dall has been tested for turf quality in Oregon. With superior turf quality ratings in comparison to the Bighorn and several hard fescues, Dall is adapted for turf use in Oregon.
6. Breeder seed of Dall hard fescue is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Dall is accepted by AOSCA, certified seed will be first offered for sale in 2008.



Granite (03-HFEXP)

1. Variety Name: Granite Kind: Hard Fescue
Genus: Festuca Species: ovina var. duriscula
Experimental designation: 03-HFEXP
Date submitted: January 2, 2008
2. Granite hard fescue is the result of a polycross between three plants collected in a campground, cemetery, and golf course in Oregon, plus individual plants from the varieties Warwick and Reliant hard fescues, with each contributing 20% to the cultivar. Selection criteria included vigor, dark green color, denser crowns, freedom from foliar disease, plant height, and potential seed yield. Breeder seed was declared in the fall of 2003.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Granite was May 2, four days earlier than Reliant and 3 days later than Aurora. Granite (77.2 cm) was similar in mature plant height than Aurora (79.8) and taller than Reliant (67.9). Granite (6.8 cm) was longer in flag leaf length than Reliant (5.5) and similar to Aurora (7.2). Granite (17.3 cm) had a longer panicle length than Aurora (13.9) and Reliant (15.6)
4. In turf trials near Lebanon, OR in 2005 and 2006, Granite 6.1, 0-9 scale, 9=ideal) had a higher turf quality than Reliant II (4.9) and Scaldis (3.7). Granite (6.8) had darker green color than Reliant II (5.5) and Scaldis (4.0). Granite (6.8) had higher resistance to leaf spot than Reliant II (4.8) and Scaldis (4.5). Granite (6.0) displayed denser turf than Reliant II (4.2) and Scaldis (3.5).
5. Granite has been tested for turf quality in Oregon. With superior turf quality ratings in comparison to the check varieties, Granite is adapted for turf use in Oregon.
6. Breeder seed of Granite hard fescue is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Granite is accepted by AOSCA, certified seed will be first offered for sale in 2008.



Heat (04-HEAT)

1. Variety Name: Heat Kind: Perennial Ryegrass
Genus: Lolium Species: perenne
Experimental designation: 04-HEAT
Date submitted: January 2, 2008
2. Heat perennial ryegrass is a five clone cross with three cycles of recurrent phenotypic selection. Equal genetic contribution came from selections from Radiant, Brightstar II, Manhattan III, Pirouette, and Palmer III perennial ryegrasses. Primary selection criteria included dark green color, small crown size, finer leaf texture, and freedom from foliar disease. Breeder seed of Heat was first produced in 2004.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Heat was May 22, similar to Pinnacle and 10 days later than Linn. Heat (62.0 cm) was shorter in mature plant height than Pinnacle (77.1) and Linn (87.8). Heat (10.7 cm) was shorter in flag leaf length than Pinnacle (13.1) and Linn (15.0). Heat (17.5 cm) had a shorter spike length than Linn (18.4) and Pinnacle (20.4)
4. In 2005/06 overseeding trials at Texas A&M, Heat performed very similar to Pleasure + and Gulf ARG in turf quality. In the same trial, Heat (67%) scored less for establishment than Pleasure + (87%) and Gulf (93%). Heat (37% bermuda) had similar transition than Pleasure + (25%) but had slower transition than Gulf (98%). In 2006-07 overseeding trials at University of Arizona, Heat was similar to Pleasure + in turf quality and transition, but was higher in turf quality (6.6) and establishment (85.8%) than Gulf (3.6 & 45%). In two-year turf trials near Lebanon, OR, Heat (6.8 on 0-9 scale, 9=darkest) was darker in color than Palmer III (5.8), Pinnacle (5.0), and Linn (2.2). In the same trial, Heat (6.8) had greater turf density than Palmer III (5.5), Pinnacle (5.0), and Linn (2.5).
5. Heat has been tested for turf quality in overseeding trials in Texas and Arizona, and, tested in western Oregon. Adequate turf performance ratings indicate that Heat is suitable for overseeding in TX and AZ, as well as for home lawns in western OR.
6. Breeder seed of Heat perennial ryegrass is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Heat is accepted by AOSCA, certified seed will be first offered for sale in 2008.



NuSprint (ARG-N)

1. Variety Name: NuSprint
Genus: Lolium
Experimental designation: ARG-N
Date submitted: January 2, 2008
Kind: Annual Ryegrass
Species: multiflorum
2. NuSprint annual ryegrass started as a cross with four cycles of recurrent phenotypic selection. An annual ryegrass plant selection from a roadside near Lebanon, OR was crossed with a perennial ryegrass selected from a closely grazed pasture near Redmond, OR. Primary selection criteria included dark green color, dense crowns, finer leaf texture, freedom from foliar disease, tillering ability, and presence of awns (character of annual ryegrass). Breeder seed of NuSprint was first produced in 2004.
3. In a two subsequent-year spaced plant nurseries near Lebanon, OR, the average heading date for NuSprint was May 13, similar to Axcella and 11 days later than Gulf. NuSprint (135.1 cm) was taller than Axcella (129.9) and shorter than Gulf (156.1). NuSprint (19.5) had a flag leaf longer than Axcella (17.2) and shorter than Gulf (26.4). NuSprint (7) had a higher tiller count in the fall of planting than Axcella (5.2) and Gulf (3.2).
4. In overseeding trials at Texas A&M, NuSprint (6.4) had turf quality similar to Axcella (6.2) and higher than Gulf (5.3). NuSprint (3.3 cm) had a shorter turf height 5 days after mowing than Axcella (4.9) and Gulf (5.2). NuSprint (5.9) was darker in color than Axcella (5.0) and Gulf (4.4). NuSprint (89) had a % stand establishment similar to Axcella (96.5) and Gulf (96.5).
5. NuSprint has been tested for turf quality in overseeding trials in Texas. Adequate turf performance ratings indicate that NuSprint is suitable for overseeding bermudagrass in Texas.
6. Breeder seed of NuSprint annual ryegrass is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include one year for Foundation, one year for Registered, and one year for Certified.
7. If NuSprint is accepted by AOSCA, certified seed will be first offered for sale in 2009.



Ringer II (04-BEN)

1. Variety Name: Ringer II Kind: Perennial Ryegrass
Genus: Lolium Species: perenne
Experimental designation: 04-BEN
Date submitted: January 2, 2008
2. Ringer II perennial ryegrass is a three population cross with two cycles of selection. One population consisted of a cross between Caddie, Vibrant, and Pennant II perennial ryegrasses. Another population was the result of a cross between Brightstar II, Premier II, Manahattan II, Palmer III, and Imagine. The last population was a cross between a plant collected in a cemetery in Des Moines, IA, a plant collected in the Veterans Memorial Park in Kansas City, MO, a plant collected from a park in Chicago, IL, and a plant collected from an old lawn in Corvallis, OR. There was equal genetic contribution from each original parent. All were selected for dark green color, better crown density, finer leaf texture, and freedom from foliar disease. Breeder seed of Ringer II was first produced in 2004.
3. In a two-year spaced plant nursery near Lebanon, OR, the average heading date for Ringer II was May 20, 1-2 days earlier than Pinnacle and 8 days later than Linn. Ringer II (67.9 cm) was shorter in mature plant height than Pinnacle (77.1) and Linn (87.8). Ringer II (3.0 mm) was narrower in flag leaf width than Pinnacle (3.4) and Linn (4.6). Ringer II (18.4 cm) had a shorter spike length than Pinnacle (20.4), and was similar to Linn (18.4)
4. In the 2004 NTEP trials, Ringer II (5.8, 1-9, 9=highest) had turf quality under "Schedule B" higher than Pinnacle (4.4) and Linn (2.6) Ringer II (6.8) had a spring density rating denser than Pinnacle (4.8) and Linn (4.0). Ringer II (7.2) was more resistant to gray leaf spot than Pinnacle (3.3), and Linn (2.7). Ringer II (6.2) was darker than Pinnacle (4.0) and Linn (3.0).
5. Ringer II has been tested for turf quality and was within the lsd. value of the top varieties in Illinois, Michigan, Oregon, Virginia, Washington, and Wisconsin. This would indicate that Ringer II is adapted for turf use in those areas.
6. Breeder seed of Ringer II perennial ryegrass is maintained by Oregro Seeds, Inc. of Albany, OR. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and six years for Certified. Additional years may be approved by the breeder or his designee.
7. If Ringer II is accepted by AOSCA, certified seed will be first offered for sale in 2008.



COL-1 (Experimental Designation)

1. Variety name: Not named yet
Genus: Festuca
Experimental designation(s): COL-1
Date submitted: December 14, 2007
Kind: Tall Fescue
Species: arundinacea
2. COL-1 is an experimental cultivar selected from bulked progenies of germplasm tracing to Avenger, Guardian 21, and five experimental lines that have been developed, but never commercially released. The germplasm sources used to create the latter 5 experimental lines were derived from recurrent breeding populations of undeveloped germplasm sources which were obtained from old turf plots near Lewisburg, PA in 2000 where they exhibited superior turf quality during the hot humid summer months when heat stress, brown patch, and pythium diseases were the most severe. The initial cross and subsequent breeder seed production were conducted under the direction of Pickseed (PS), Albany, OR. All parental material was selected on the basis of good turf quality, dark green foliage color, good tolerance to heat stress, and good seed production potential. Breeder seed of COL-1 was first produced in 2006.
3. When grown as spaced plants at two western Oregon locations in 2007, the average heading date of COL-1 was May 13. This was the same as Bonanza and Silverado, and 6 days earlier than Bonsai. The mature plant height of COL-1 was 64.0 cm. This was similar to Silverado (66.0 cm), and shorter than Kentucky 31 (102.0 cm). The average panicle length of COL-1 was 16.5 cm. This was similar to Silverado (18.5 cm), and shorter than Rebel II (23.0 cm) and Bonanza (25.3 cm).
4. The turf quality of COL-1 (6.7 to 7.0 on 1-9, 9 = ideal turf scale) is superior to Bonsai (4.8 to 6.1) and Silverado (3.8 to 4.8). The foliage color of COL-1 (6.3 to 7.3 on 1-9, 9 = very dark scale) is darker than Bonsai (4.3 to 5.8), Rebel II (3.3 to 3.7), and Silverado (2.7 to 4.5).
5. COL-1 has been tested for turf quality under lawn conditions in western OR, and central PA. At these two locations, COL-1 has shown good turf quality.
6. A record sample of original Breeder seed, and any further Breeder seed production, will be maintained by Pickseed, Albany, OR. Foundation fields may only be established using Breeder seed. Registered fields may be established from either Foundation or Breeder seed. Certified fields may be established from Breeder, Foundation, or Registered seed. Foundation and Registered class fields will be limited to four harvests of Foundation/Registered production, followed by three additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder, or an individual designated by the breeder.
7. If COL-1 is accepted by official seed certifying agencies, Certified seed will first be offered for sale in August 2009.



COL-J (Experimental Designation)

1. Variety name: Not named yet
Genus: Festuca
Experimental designation(s): COL-J
Date submitted: December 14, 2007
Kind: Tall Fescue
Species: arundinacea
2. COL-J is an experimental cultivar selected from bulked progenies of germplasm tracing to Avenger and three experimental lines that have been developed, but never commercially released. The germplasm sources used to create the three experimental lines were derived from recurrent breeding populations of undeveloped germplasm sources which were obtained from old turf plots near Lewisburg, PA in 2000 where they exhibited superior turf quality during the hot humid summer months when heat stress, brown patch, and pythium diseases were the most severe. The initial cross and subsequent breeder seed production were conducted under the direction of Pickseed (PS), Albany, OR. All parental material was selected on the basis of good turf quality, dark green foliage color, good tolerance to heat stress, and good seed production potential. Breeder seed of COL-J was first produced in 2006.
3. When grown as spaced plants at two western Oregon locations in 2007, the average heading date of COL-J was May 14. This was the same as Bonanza and Silverado, and 5 days earlier than Bonsai. The mature plant height of COL-J was 64.0 cm. This was similar to Silverado (66.0 cm), and shorter than Kentucky 31 (102.0 cm). The average panicle length of COL-J was 17.6 cm. This was similar to Silverado (18.5 cm), and shorter than Rebel II (23.0 cm) and Bonanza (25.3 cm).
4. The turf quality of COL-J (6.6 to 7.0 on 1-9, 9 = ideal turf scale) is superior to Bonsai (4.8 to 6.1) and Rebel II (3.8 to 4.0). The foliage color of COL-J (6.3 to 7.0 on 1-9, 9 = very dark scale) is darker than Silverado (2.7 to 4.5), Rebel II (3.3 to 3.7), and Bonanza (2.0 to 2.7).
5. COL-J has been tested for turf quality under lawn conditions in western OR, and central PA. At these two locations, COL-J has shown good turf quality.
6. A record sample of original Breeder seed, and any further Breeder seed production, will be maintained by Pickseed, Albany, OR. Foundation fields may only be established using Breeder seed. Registered fields may be established from either Foundation or Breeder seed. Certified fields may be established from Breeder, Foundation, or Registered seed. Foundation and Registered class fields will be limited to four harvests of Foundation/Registered production, followed by three additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder, or an individual designated by the breeder.
7. If COL-J is accepted by official seed certifying agencies, Certified seed will first be offered for sale in August 2008.



COL-M (Experimental Designation)

1. Variety name: Not named yet
Genus: Festuca
Experimental designation(s): COL-M
Date submitted: December 14, 2007
Kind: Tall Fescue
Species: arundinacea
2. COL-M is an experimental cultivar selected from bulked progenies originating from the open pollination of seven experimental families. The germplasm sources used to develop COL-M were derived from recurrent breeding populations of undeveloped germplasm sources which were obtained from old turf plots near Lewisburg, PA in 2000 where they exhibited superior turf quality during the hot humid summer months when heat stress, brown patch, and pythium diseases were the most severe. The initial cross and subsequent breeder seed production were conducted under the direction of Pickseed (PS), Albany, OR. All parental material was selected on the basis of good turf quality, dark green foliage color, good tolerance to heat stress, and good seed production potential. Breeder seed of COL-M was first produced in 2006.
3. When grown as spaced plants at two western Oregon locations in 2007, the average heading date of COL-M was May 14. This was the same as Silverado, 5 days earlier than Bonsai, and 7 days later than Kentucky 31. The mature plant height of COL-M was 63.5 cm. This was similar to Bonsai (64.1 cm) and shorter than Kentucky 31 (102.0 cm). The average panicle length of COL-M was 17.5 cm. This was similar to Silverado (18.5 cm), and shorter than Rebel II (23.0 cm) and Bonanza (25.3 cm).
4. The turf quality of COL-M (7.0 to 7.9 on 1-9, 9 = ideal turf scale) is superior to Bonsai (4.8 to 6.1) and Rebel II (3.8 to 4.0). The foliage color of COL-M (6.5 to 7.8 on 1-9, 9 = very dark scale) is darker than Bonsai (4.3 to 5.8), Rebel II (3.3 to 3.7), and Silverado (2.7 to 4.5).
5. COL-M has been tested for turf quality under lawn conditions in western OR, and central PA. At these two locations, COL-M has shown good turf quality.
6. A record sample of original Breeder seed, and any further Breeder seed production, will be maintained by Pickseed, Albany, OR. Foundation fields may only be established using Breeder seed. Registered fields may be established from either Foundation or Breeder seed. Certified fields may be established from Breeder, Foundation, or Registered seed. Foundation and Registered class fields will be limited to four harvests of Foundation/Registered production, followed by three additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder, or an individual designated by the breeder.
7. If COL-M is accepted by official seed certifying agencies, Certified seed will first be offered for sale in August 2008.



J-140 (Experimental Designation)

1. Variety name: Not named yet
Genus: Festuca
Experimental designation(s): J-140
Date submitted: December 14, 2007
Kind: Tall Fescue
Species: arundinacea
2. J-140 is an experimental cultivar selected from the progenies of six germplasm sources. Progenies used in the development of the cultivar were derived from Guardian 21, SR 8500, Montserrat, and the experimental varieties of Pickseed (PS), 04-2 FA, 00 A FA, and M4. The objective for creating J-140 was to develop an improved cultivar derived from families that possessed dark green foliage color, short mature growth habit, and good seed production potential. Breeder seed of J-140 was first produced in 2006.
3. When grown as spaced plants at two western Oregon locations in 2007, the average heading date of J-140 was May 11. This was the same as Rebel II, and 8 days earlier than Bonsai. The mature plant height of J-140 was 70.9 cm. This was similar to Bonsai (64.1 cm) and Silverado (66.0 cm), but shorter than Kentucky 31 (102.0 cm). The average panicle length of J-140 was 18.8 cm. This was similar to Silverado (18.5 cm), and shorter than Rebel II (23.0 cm) and Bonanza (25.3 cm).
4. The turf quality of J-140 (6.7 to 7.0 on 1-9, 9 = ideal turf scale) is superior to Bonsai (4.8 to 6.1) and Rebel II (3.8 to 4.0). The foliage color of J-140 (6.7 to 6.8 on 1-9, 9 = very dark scale) is darker than Rebel II (3.3 to 3.7), and Silverado (2.7 to 4.5).
5. J-140 has been tested for turf quality under lawn conditions in western OR, and central PA. At these two locations, J-140 has shown good turf quality.
6. A record sample of original Breeder seed, and any further Breeder seed production, will be maintained by Pickseed, Albany, OR. Foundation fields may only be established using Breeder seed. Registered fields may be established from either Foundation or Breeder seed. Certified fields may be established from Breeder, Foundation, or Registered seed. Foundation and Registered class fields will be limited to four harvests of Foundation/Registered production, followed by three additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder, or an individual designated by the breeder.
7. If J-140 is accepted by official seed certifying agencies, Certified seed will first be offered for sale in August 2008.



M4 (Experimental Designation)

1. Variety name: Not named yet
Genus: Festuca
Experimental designation(s): M4
Date submitted: December 14, 2007
Kind: Tall Fescue
Species: arundinacea
2. M4 is an experimental cultivar selected from the maternal progenies of 14 clones. The majority of parental germplasm used to develop M4 traces its origin to the cultivars Apache, Coyote, Rebel Jr., and Montauk. In addition, parental germplasm came from Rutgers University plant collections of germplasm from University of GA, Downer's Grove, IL, and Atlanta, GA. Throughout the development of M4, the selection criteria were semi-dwarf growth habit, dark green foliage, medium fine leaf texture, and medium-early maturity. Breeder seed of M4 was first produced in 2006.
3. When grown as spaced plants at two western Oregon locations in 2007, the average heading date of M4 was May 7. This was the same as Kentucky 31, and 5 and 7 days earlier than Rebel II and Silverado, respectively. The mature plant height of M4 was 69.8 cm. This was similar to Silverado (66.0 cm), and shorter than Kentucky 31 (102.0 cm). The average panicle length of M4 was 19.0 cm. This was similar to Silverado (18.5 cm), and shorter than Rebel II (23.0 cm) and Bonanza (25.3 cm).
4. The turf quality of M4 (6.6 to 7.3 on 1-9, 9 = ideal turf scale) is superior to Bonsai (4.8 to 6.1) and Rebel II (3.8 to 4.0). The foliage color of M4 (6.3 to 7.3 on 1-9, 9 = very dark scale) is darker than Bonsai (4.3 to 5.8), Rebel II (3.3 to 3.7), and Silverado (2.7 to 4.5).
5. M4 has been tested for turf quality under lawn conditions in western OR, and central PA. At these two locations, M4 has shown good turf quality.
6. A record sample of original Breeder seed, and any further Breeder seed production, will be maintained by Pickseed, Albany, OR. Foundation fields may only be established using Breeder seed. Registered fields may be established from either Foundation or Breeder seed. Certified fields may be established from Breeder, Foundation, or Registered seed. Foundation and Registered class fields will be limited to four harvests of Foundation/Registered production, followed by three additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder, or an individual designated by the breeder.
7. If M4 is accepted by official seed certifying agencies, Certified seed will first be offered for sale in August 2008.



Full Throttle (CAS-MP64, MP64)

1. Variety name: Full Throttle
Genus: Lolium
Experimental designation: CAS-MP64, MP64
Date submitted: December 1, 2007
- Kind: Perennial Ryegrass
Species: perenne
2. Full Throttle is an advanced generation, synthetic, diploid cultivar developed from collections in New South Wales, Victoria, and Queensland Australia. The breeding method consisted of five cycles of phenotypic selection. Forage trials were conducted in Oregon to test forage performance of progeny during the cycles of development. The parents of Full Throttle were selected on the basis of forage potential, cold tolerance, general freedom from disease, and phenotypic similarity. Breeder seed was first produced in 2000.
3. Full Throttle is an early maturing cultivar with an average Heading date of May 3, similar to Nui at May 4; average Heading date for trial = May 10 (earliest Linn = April 30, latest Norlea = May 30). Full Throttle is an average height cultivar with a Total Plant Height of 91.27 cm; similar to Prana at 91.4 cm, and Linn at 91.9 cm. Full Throttle has a relatively short Flag Leaf Height of 43.85 cm; similar to Linn at 45.17 cm, and Sierra at 40.26 cm. Full Throttle has a relatively short Flag Leaf Length of 20.47 cm; similar to Norlea at 21.28 cm, and 19.49 cm. Full Throttle has a relatively average Flag Leaf Width of 7.35 mm; similar to Nui at 7.27 mm, and Sierra at 7.09 mm. Full Throttle has a relatively short Inflorescence Length of 24.21 cm; similar to Linn at 24.01 cm.
4. Full Throttle has exhibited average to above-average forage yields in Lexington, Kentucky and Ephrata, Washington. Upon evaluations, Full Throttle produced a 2-year total Dry Matter Yield (T/A) of 7.81 in Kentucky; similar yields were produced in Kentucky by Sierra with 7.83 T/A, and Maverick Gold with 7.82 T/A. Full Throttle produced a 2-year total Dry Matter Yield (T/A) of 9.5 in Ephrata; a similar yield was produced in Ephrata by Rosalin with 9.2 T/A. Full throttle has exhibited high relative % Stand scores in Oregon, scoring a 84.4% stand rating, compared to Sierra at 91.7% and Mongita at 72.4%.
5. Full Throttle has been tested at the University of Kentucky in Lexington, at Washington State University in Ephrata, and Radix Research, Inc.'s testing facility near Corvallis, Oregon. Full Throttle's performance at these locations indicates its suitability for forage use in Kentucky and eastern Washington State.
6. All breeding work was carried out by Chad F. Miebach and Steven J. Witten, owners and plant breeders of Radix Research, Inc. A portion of Breeder seed has been retained in cold storage; any further Breeder seed production will be overseen by Radix Research, Inc. Full Throttle has been released to Columbia Seeds LLC of Corvallis, Oregon. Foundation, Registered and Certified classes of seed production will be maintained by Columbia Seeds, in cooperation with Cascade International Seed Company and Radix Research, Inc. The stand life of each generation should be limited to the following:
1. Foundation: 4 years + 3 years of certified.
 2. Registered: 4 years + 3 years of certified.
 3. Certified: 7 years.
7. If Full Throttle is accepted by official seed certifying agencies, the first Certified Seed will be offered for sale in 2008.



Hymark (CAS-EA79, EA79)

- Variety name: Hymark
Genus: Festuca
Experimental designation: CAS-EA79, EA79
Date submitted: December 15, 2007
Kind: Tall Fescue
Species: arundinacea
- Hymark is an advanced generation synthetic cultivar developed from collections in New South Wales, Australia (50%), the South American variety Palenque (25%), and the European variety Ondine (25%). The breeding method consisted of two cycles of phenotypic selection. Forage trials were conducted in Oregon to test forage performance of progeny during the cycles of development. The parents of Hymark were selected on the basis of drought tolerance, expanded seasonal forage production while retaining sufficient cold tolerance, general freedom from disease, and phenotypic similarity. Breeder seed of Hymark was first produced in 1999.
- Hymark is an early maturing cultivar with an average Heading date of April 30, similar to Stag; average Heading date for trial was April 30 (earliest AU Triumph = April 16, latest Stargrazer = May 10). Hymark is a tall cultivar with a Total Plant Height of 155.1 cm; similar to Stag (154.4 cm) and taller than Hoedown (150.7 cm). Hymark has a relatively broad Tiller Leaf Width of 8.2 mm; similar to Stag (8.1 mm) and wider than Hoedown (7.9 mm).
- Hymark has exhibited high forage yields in southern coastal British Columbia and Tulalake, California. At Sumas Prairie, Sidney and Chilliwack, British Columbia Hymark produced 2-year mean forage yields (Tons/Acre) of 6.6, 7.75 and 6.7, respectively; most similar to Festival with forage yields of 6.55, 7.5, and 6.7; and Barolex with forage yields of 6.3, 6.75, and 6.5. At Tulalake, California Hymark produced a 2-year mean forage yield (T/A) of 10.8; most similar to Georgia 5 Max-Q with 11.1, and Stag with 10.7. Hymark has exhibited good stand persistence in Newton and Mississippi State, Mississippi scoring 95% and 99%, respectively, similar to Georgia 5 Max-Q and Jesup Fl.
- Hymark has been tested in British Columbia, California, Georgia, Kentucky, Mississippi, Ohio, Oklahoma and Oregon. Hymark's performance at these locations indicates its suitability for forage use in the Pacific Northwest and Mississippi.
- All breeding work was carried out by Chad F. Miebach and Steven J. Witten, owners and plant breeders of Radix Research, Inc. A portion of breeder seed has been retained in cold storage; any further Breeder seed production will be overseen by Radix Research, Inc. Hymark has been released to Fraser Seeds Ltd. of Abbotsford, British Columbia. Hymark has been accepted and registered with the Canadian Variety Registration Office. Foundation, Registered, and Certified classes of seed production will be maintained by Fraser Seeds Ltd., in cooperation with Cascade International Seed Company and Radix Research, Inc. The stand life of each generation should be limited to the following:
 - Foundation: 3 years + 5 years of certified.
 - Registered: 3 years + 5 years of certified.
 - Certified: 8 years.
- If Hymark is accepted by official seed certifying agencies, the first Certified seed will be offered for sales in the United States in 2008.



RAD-PR27, PR27 (Experimental Designation)

1. Variety Name: Not yet named
Genus: Lolium
Experimental Designations: RAD-PR27, PR27
Date Submitted: January 10, 2008
Kind: Perennial Ryegrass
Species: perenne
2. RAD-PR27 was developed using three cycles of selection. RAD-PR27 originates from the varieties Stellar (10%), Kokomo (10%), Pizzaz (10%), All Star 2 (10%), Grand Slam (10%) and Fiesta III (10%) as well as naturalized selections collected in January 2002 from closely grazed pastures east of 1931 Strickland Canyon Road, Lookingglass, OR (10%), from the Lake Redding Golf Course in Redding, CA (10%), from the Lincoln Park Golf Course in San Francisco, CA (10%) and from the Paso Tiempo Golf Course in Santa Cruz, CA (10%). Breeder seed of RAD-PR27 was first produced in 2004.
3. RAD-PR27 has exhibited a heading date range of May 26 and May 29, similar to Pinnacle (May 29 and May 30) and Manhattan II (June 2 and June 1). RAD-PR27 exhibited a total plant height range of 67.6 cm and 75.3 cm, similar to Pinnacle (66.7 cm and 76.0 cm) and Manhattan II (68.1 cm and 77.5 cm). RAD-PR27 exhibited a flag leaf length range of 14.8 cm and 15.0 cm, similar to Manhattan II (16.9 cm and 16.4 cm) and shorter than Pinnacle (17.1 cm and 16.7 cm).
4. In turf trials planted in Western Oregon in 2004, RAD-PR27 exhibited good turf quality scores of 6.2 and 5.9, similar to Mach I (6.8 and 6.2) and Gator 3 (5.6 and 5.4). RAD-PR27 exhibited good turf color scores of 6.4 and 5.8, similar to Gator 3 (5.5 and 5.3) and Mach I (6.7 and 6.5). (Scale = 1-9, 9 = best.)
5. RAD-PR27 has been tested under lawn conditions in Western Oregon. RAD-PR27 exhibited good turf quality at this location, indicating that RAD-PR27 is suitable for use in lawns in this area.
6. RAD-PR27 breeder seed is produced by Radix Research, Inc. A sample of the original breeder seed has been retained in cold storage for future use. Foundation fields will be maintained by Radix Research, Inc or its designees. Seed increase beyond breeder is limited to three generations; one each for foundation, registered and certified. The stand life of each generation should be limited to the following:
 - Foundation: 3 years + 4 years of certified.
 - Registered: 3 years + 4 years of certified.
 - Certified: 7 years.
7. If RAD-PR27 is accepted by official seed certifying agencies, Certified Seed will first be offered for sale in 2008.



RAD-TF17, TF17 (Experimental Designation)

1. Variety Name: Not yet named Kind: Tall Fescue
 Genus: Festuca Species: arundinacea
 Experimental Designations: RAD-TF17, TF17
 Date Submitted: January 10, 2008

2. RAD-TF17 was developed using three cycles of selection. RAD-TF17 originates from the varieties Scorpion (25%) and Lion (25%) as well as naturalized selections collected in January 2002 from the Mount Hope Cemetery in San Diego, CA (25%), and from the Lake Redding Golf Course in Redding, CA in 2002 (25%). Breeder seed of RAD-TF17 was first produced in 2004.

3. RAD-TF17 has exhibited a heading date range of May 10 and May 8, similar to Mini Mustang (May 10 and May 9) and Rebel II (May 8 and May 7). RAD-TF17 exhibited a total plant height range of 93.9 cm and 115.7 cm, similar to Mini Mustang (98.0 cm and 115.4 cm) and Rebel Jr. (101.2 cm and 113.9 cm). RAD-TF17 exhibited a flag leaf width range of 8.1 mm and 8.0 mm, similar to Bonanza (8.8 mm and 7.7 mm) and Rebel Jr. (7.9 mm and 7.1 mm).

4. In turf trials planted in Western Oregon in 2004, RAD-TF17 exhibited good turf quality scores of 6.1 and 5.8, similar to Falcon 4 (6.1 and 6.0) and Raptor (6.2 and 6.0). RAD-TF17 exhibited very good turf color scores of 6.6 and 6.2, similar to Raptor (6.4 and 6.2) and Falcon 4 (6.1 and 5.8). (Scale = 1-9, 9 = best.)

5. RAD-TF17 has been tested under lawn conditions in Western Oregon. RAD-TF17 exhibited good turf quality at this location, indicating that RAD-TF17 is suitable for use in lawns in this area.

6. RAD-TF17 breeder seed is produced by Radix Research, Inc. A sample of the original breeder seed has been retained in cold storage for future use. Foundation fields will be maintained by Radix Research, Inc or its designees. Seed increase beyond breeder is limited to three generations; one each for foundation, registered and certified. The stand life of each generation should be limited to the following:
 - Foundation: 4 years + 5 years of certified.
 - Registered: 4 years + 5 years of certified.
 - Certified: 9 years.

7. If RAD-TF17 is accepted by official seed certifying agencies, Certified Seed will first be offered for sale in 2008.



Turbo RZ **RAD-TF8, TF8, Bur-TF8**

1. Variety Name: Turbo RZ
Genus: Festuca
Experimental Designations: RAD-TF8, TF8, Bur-TF8
Date Submitted: January 10, 2008
Kind: Tall Fescue
Species: arundinacea
2. Turbo RZ was developed using three cycles of selection. Turbo RZ originates from the varieties Millennium (18.75%), Rembrandt (18.75%), Turbo (12.5%), Pixie (12.5%) and Barlexas II (12.5%) as well as naturalized selections collected in January 2002 from the Red Hawk Golf Course in San Diego (12.5%), the Paso Tiempo Golf Course in Santa Cruz (6.25%) and the Lincoln Park Golf Course in San Francisco (6.25%). Breeder seed of Turbo RZ was first produced in 2004.
3. Turbo RZ has exhibited a heading date range of May 9 and May 7, similar to Rebel II (May 8 and May 7) and Mini Mustang (May 10 and May 9). Turbo RZ exhibited a total plant height range of 88.7 cm and 107.7 cm, similar to Silverado (87.9 cm and 109.4 cm) and Bonsai (80.0 cm and 106.7 cm). Turbo RZ exhibited a flag leaf length range of 11.7 cm and 14.6 cm, shorter than Silverado (13.3 cm and 17.0 cm) and longer than Bonsai (8.9 cm and 12.2 cm).
4. In turf trials planted in Western Oregon in 2004, Turbo RZ exhibited very good turf quality scores of 6.6 and 6.7, similar to Falcon 4 (6.1 and 6.0) and Raptor (6.2 and 6.0). Turbo RZ exhibited very good turf density scores of 6.3 and 6.6, similar to Falcon 4 (5.9 and 6.2) and Raptor (5.8 and 5.9). (Scale = 1-9, 9 = best.)
5. Turbo RZ has been tested under lawn conditions in Western Oregon. Turbo RZ exhibited good turf quality at this location, indicating that Turbo RZ is suitable for use in lawns in this area.
6. Turbo RZ breeder seed is produced by Radix Research, Inc. A sample of the original breeder seed has been retained in cold storage for future use. Foundation fields will be maintained by Radix Research, Inc or its designees. Seed increase beyond breeder is limited to three generations; one each for foundation, registered and certified. The stand life of each generation should be limited to the following:
 - Foundation: 4 years + 5 years of certified.
 - Registered: 4 years + 5 years of certified.
 - Certified: 9 years.
7. If Turbo RZ is accepted by official seed certifying agencies, Certified Seed will first be offered for sale in 2008.



Paladin (4.0504)

1. Variety name: Paladin Kind: Tall Fescue
Genus: Festuca Species: *arundinacea*
Experimental designation(s): 4.0504
Date submitted: Jan 2, 2008
2. Paladin was developed from germplasm that was exposed to soil moisture stress tests in a greenhouse near Lebanon, Oregon. Approximately 500 plants survived and were transplanted to the field in 2002. In 2003, approximately 50% of the plants were rogued for seed head number, blade width, and rust susceptibility. The remaining plants were allowed to interpollinate with seed bulked to form breeder seed of Paladin in 2003. The germplasm sources originate from the following: Rebel 2000, Rebel 3D, Rebel Sentry, Five Point, plugs from unknown origin near Albany, OR, Tarheel, Rebel Jr., Rebel III, Riverside, Millenium, Bonsai, ORTerr-T94-2, Kentucky 31, Tribute, D2M1, and E1WN.
3. When grown as spaced plants in Lebanon, Oregon in 2005 and 2006, the average heading date for Paladin was May 19. This was similar to Bonanza and 4-8 days later than Kentucky 31. The average mature plant height for Paladin was 94 cm. This was similar to Rebel Jr. (96 cm) and shorter than Kentucky 31 (137 cm) and Rebel II (118 cm). The average flag leaf length for Paladin was 10.4 cm. This was shorter than Kentucky 31 (15.4 cm) and Bonanza (16.1 cm) and similar to Silverado (10.6 cm).
4. The turf quality of Paladin (4.8 to 5.2 on 1-9; 9=ideal turf quality) is similar to Justice (4.7 to 5.1) and superior to Rebel Jr. (3.7 to 3.9). The turf color of Paladin (3.2 to 5.6 on 1-9; 9=dark green) is lighter green than Raptor (6.0 to 6.3) and similar to Santa Fe (MA 108) (3.9 to 5.3).
5. Paladin has been tested for turf quality under lawn conditions in Virginia. The turf performance in Virginia suggests that Paladin is suitable for use in that state.
6. Breeder seed was first produced in 2003. A supply of Paladin breeder seed is maintained as seed by Blue Moon Farm, Lebanon, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Paladin is accepted by official seed certifying agencies Certified Seed will first be offered for sale in 2008.



Reliant IV (IB4 HF)

1. Variety name: Reliant IV
Genus: *Festuca*
Experimental designation(s): IB4 HF
Date submitted: Jan 2, 2008
Kind: Hard Fescue
Species: *longifolia*
2. Reliant IV hard fescue (*Festuca longifolia* Thuill. (synonym *F. brevipila* and *F. trachyphylla*)) is an advanced generation synthetic cultivar selected from 16 maternal lines selected in 2001 from turf plots crossed with 36 lines from Reliant II selected for summer stress resistance. Reliant IV was developed for improved seed yield and turf performance, dark bright green color, freedom from disease and medium maturity. The parental germplasm traces to plants related to the cultivar Reliant II hard fescue, plants used in a cross between A85-STE x Aurora, plants collected from an old turf area in Adelphia, NJ in the late 1980's, a plant selected from Old Bridge Cemetery in Old Bridge, NJ and to the cultivar Waldina. Breeder seed was produced in 2003.
3. When grown as spaced plants in Lebanon, Oregon in 2004 and 2005, the average heading date for Reliant IV was April 20. This was similar to Scaldis (April 20), Biljart (April 18), and SR 3000 (April 22). The average flag leaf height for Reliant IV was 22.3 cm. This was similar to Reliant II (20.7 cm) and Scaldis (24.5 cm). The average flag leaf length for Reliant IV was 5.8 cm. This was similar to Biljart (5.7 cm) and Reliant (5.5 cm).
4. The turf quality of Reliant IV (average 4.6, 3.8 to 5.3 on 1-9; 9= ideal turf) is similar to Oxford (average 4.6, 4.4 to 4.7) and greater than Scaldis (average 2.9, 2.9 to 2.9). The genetic color of Reliant IV (average 6.5, 5.7 to 7.3 on 1-9; 9= dark green) is similar to Oxford (average 6.5, 6.3 to 6.7) and Scaldis (average 6.9, 6.7 to 7.0).
5. Reliant IV has been tested for turf quality under lawn conditions in New Jersey, Indiana, North Dakota, and Michigan. At these locations Reliant IV had good turf performance suggesting that Reliant IV is suitable for use in those states.
6. A supply of Reliant IV breeder seed is maintained as seed by Blue Moon Farm, Lebanon, Oregon. Foundation stands may only be planted from breeder seed. Registered stands may be established from either Foundation or Breeder Seed. Certified fields may be established from Breeder, Foundation, or Registered Seed. Foundation and Registered class fields will be limited to three harvests of Foundation/Registered production followed by four additional harvests of Certified production. Certified class fields will be limited to seven years of seed production. Additional years of seed production may be approved by the breeder or an individual designated by the breeder.
7. If Reliant IV is accepted by official seed certifying agencies Certified Seed will first be offered for sale in 2008.



Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
02.0384 Perennial ryegrass ²	02.0384		2004	0.91%
11T Perennial ryegrass	11T, 11-T		2008	1.26%
1G2 Perennial ryegrass	1G2		2004	0.63%
1GSquared Perennial ryegrass	APR1664		2007	1.06%
246 Perennial ryegrass			1991	0.27%
2CB Perennial ryegrass	PST-2CB		1996	1.97%
4.625 (ProTyme) Perennial ryegrass ²	4.625, ABT-99-4.625, 625, ProTyme		2004	0.77%
856 Perennial ryegrass	PR 856		1991	0.87%
89-90 Perennial ryegrass	WVPB 89-90		1994	2.15%
90-14 Perennial ryegrass ²	WVPB PR 90-14		1996	7.12%
96-KSOS-L-1-PR-WVPB-C-24 Perennial ryegrass ²	WVPB-PR-C-24, Wilco-C-24		2000	6.50%
A.S.A.P. Perennial ryegrass	JR-265, A.S.A.P.		2000	1.42%
A+ Perennial ryegrass	WVPB-PR-D-9, PRO Seeds D-9, PS-D-9		2000	6.23%
Academy Perennial ryegrass	WVPB-PR-93-1, PC-93-1, WVPB-PR-P.C.-93-1		1997	2.33%
Accent II Perennial ryegrass	JR-119	Caddieshack	2007	1.04%
Accent Perennial ryegrass	Med-393, GII, Ma-GII	Jackento	1995	0.56%
Accolade Perennial ryegrass	HR-1		1992	4.83%
Accord Perennial ryegrass	Devon Eaver		1993	4.08%
Achiever Perennial ryegrass	Pick 1800		1994	0.93%
Admire Perennial ryegrass	JR-151, Admire		2000	2.37%
Advent Perennial ryegrass	PJC, JC		1991	0.14%
Affinity Perennial ryegrass	GEN-90		1996	0.77%
Affirmed Perennial ryegrass	LTP-95-1X4551, Affirmed		2000	2.59%
Agresso Perennial ryegrass			1991	2.00%
All*Star Perennial ryegrass	Allstar		1992	0.47%
Allaire II Perennial ryegrass	All-2		1995	1.15%
AllSport Perennial ryegrass	A+96, AllSport		1999	0.92%
ALS2 (Allsport 2) Perennial ryegrass ²	ALS2, Allsport 2		2007	0.86%
Amazing Perennial ryegrass	B1, Amazing		2004	0.72%
Americus Perennial ryegrass	A4-01.0613, Americus		2003	0.04%
APM Perennial ryegrass	MS		1994	0.59%
Applaud II Perennial ryegrass	APR1665		2007	0.11%
Applaud Perennial ryegrass	11301, Applaud		2003	0.39%
Apple GL Perennial ryegrass	AAZ-B104, Apple GL, UP-4		2007	0.76%
APR1472 Perennial ryegrass	APR1472		2005	0.68%
APR1667 Perennial ryegrass	APR1667		2008	0.38%
Aquarius 3 Perennial ryegrass	Aquarius 3		2002	1.24%
AQUARIUS 4 Perennial ryegrass	AQUARIUS 4		2008	1.97%
Aquarius Perennial ryegrass	KWS A1-2		1996	0.97%
Archer Perennial ryegrass	CAS-MP21		1998	1.51%
Arrival Perennial ryegrass	CIS-PR 84		2005	0.48%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

**Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008**

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Ascend Perennial ryegrass	MB 45		1999	3.09%
ASP410 Perennial ryegrass	APR120		1998	0.18%
ASP6001 Perennial ryegrass	RTS		2007	0.57%
ASP6002 Perennial ryegrass	BPR		2007	1.13%
ASP6003 Perennial ryegrass	TRS		2007	0.85%
ASP6004 Perennial ryegrass	EXS54		2007	0.45%
ASP6005 Perennial ryegrass	AJM		2007	0.76%
ASP6006 Perennial ryegrass	LPCG		2007	0.38%
Assure Perennial ryegrass	FZ 2FZ		1991	0.72%
Attribute Perennial ryegrass	IS-PR 270, Attribute		2007	0.70%
Axcella 2 Annual ryegrass	TXR 2003-TF1		2007	87.24%
B-06.0756 Perennial ryegrass	B-06.0756		2008	1.02%
Barlennium Perennial ryegrass	BARUSA 95-1, 95-1, Lp 95-1, BARUSA Lp 95-1		2006	0.21%
Bayou Perennial ryegrass ²	LF-107		2001	1.33%
Bedford Perennial ryegrass			1991	1.40%
Bella Perennial ryegrass	LRF-94-B7E, LRF-94-B7, B7E, B7, B7 red		1997	0.65%
Blackhawk Perennial ryegrass	WVPB-PR-93-41, TMI-EXFLP-94		1996	1.17%
Blazer 4 Perennial ryegrass	Pick MDR, Blazer 4		2004	0.47%
Blazer III Perennial ryegrass	PR 89-8 DDO, Pick 928		1996	1.18%
Boardwalk Perennial ryegrass	WVPB 88-PR D-4		1995	2.72%
Breeze Perennial ryegrass	WVPB-PR-89-666		1995	1.57%
Brightstar II Perennial ryegrass	PST-2M3	Polarstar	1997	2.24%
Brightstar Perennial ryegrass	GH 89		1993	1.79%
Brightstar SLT Perennial ryegrass	PST-2A6B	Vantage	2002	0.55%
Buccaneer II Perennial ryegrass	WVPB-PR-92-4		1998	5.48%
Buccaneer Perennial ryegrass	Koos 90-1 , WVPB-PR-90-1		1994, 1998	7.44%
Buena Vista Perennial ryegrass	CIS-PR 208, IS-PR 208, Buena Vista		2005	2.01%
C-21 Perennial ryegrass	WVPB 88-PR C-21 (Miss Kitty)		1996	6.28%
Cabo Perennial ryegrass	CIS-PR80, Cabo		2002, 2005	2.62%
Caddieshack II Perennial ryegrass	JR-163		2007	2.70%
Caddieshack Perennial ryegrass	MED-5071, 93-1705		1999, 2001	1.57%
Cadence Perennial ryegrass	Cadence, MRF 44		2004	3.32%
Calibra Perennial ryegrass	Calibra		2006	6.70%
Caliente Perennial ryegrass	UA		1992	0.74%
Calypso II Perennial ryegrass	Agway PR-92		1996	0.47%
Calypso III Perennial ryegrass	MS2		2007	1.04%
Calypso Perennial ryegrass	SWRC		1993	1.29%
CAS-EP66 (Sierra) Perennial ryegrass ²	CAS-EP66, EP66, Sierra		2005	1.31%
CAS-MP64 (Full Throttle) Perennial ryegrass ²	CAS-MP64, MP64, Full Throttle		2006	7.05%
Casper Perennial ryegrass	01.0618, Casper		2005	1.07%
Catalina II Perennial ryegrass	PST-CATS, Catalina II		2003	1.31%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

**Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008**

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Catalina Perennial ryegrass	PST-GH-94		1996	3.18%
Cathedral Perennial ryegrass	WX9-1		1995	0.85%
Chaparral II Perennial ryegrass	PST-2VL, Wimbleton, Chaparral II	Paradise	2003	0.43%
Chaparral Perennial ryegrass	PST-2DLM		1997	1.62%
Charger II Perennial ryegrass	PST-2QM	Fairway	1998	0.54%
Charisma Perennial ryegrass	WVPB-89-92		1995	2.39%
Charismatic Perennial ryegrass	LTP-98-501, Charismatic		2003	1.39%
Chatham Perennial ryegrass	CAS-SRX	Catia	1996	2.11%
Churchill Perennial ryegrass	LTP-DLM, Churchill		2000	2.93%
Cinderella Perennial ryegrass	LF-103, Barefoot, Bigfoot, Cinderella		2002	1.59%
CIS-MBH Perennial ryegrass	ISI-MBH	Platinum	1998	1.27%
Citation Fore Perennial ryegrass	PST-2BR, Citation Fore		2002	0.13%
Citation III Perennial ryegrass	PST-2DGR		1996	0.96%
Commander Perennial ryegrass	259		1996	1.02%
Confetti Perennial ryegrass	STP, Confetti		2007	1.06%
Continental Perennial ryegrass	LF-100, Continental		2000	5.88%
Covet Perennial ryegrass	LF-104, Covet		2002	2.71%
Cruiser Perennial ryegrass	ABT-99-4.709, Cruiser, UT1000, 99.022		2003	0.59%
Cutter II Perennial ryegrass	PM101		2008	0.78%
Cutter Perennial ryegrass	PICK 89-4		1995	1.65%
D04-UP Perennial ryegrass	D04-UP		2008	0.84%
Dancer Perennial ryegrass	ISS-E		1996	0.78%
Dandy Perennial ryegrass	Cosmos DBS		1991	2.00%
Dasher 3 Perennial ryegrass	Pick RB-1		2008	0.40%
Dazzle Perennial ryegrass	4.724, Dazzle		2004	0.98%
Delaware Dwarf Perennial ryegrass	4dd		1992, 1998	2.60%
Delaware XL Perennial ryegrass	Pick 01-2 PRG		2005	0.71%
Derby Supreme Perennial ryegrass	PR 852		1991	2.85%
Derby Xtreme Perennial ryegrass	IS-PR 268		2007	0.30%
DEVO Perennial ryegrass	DEVO		2005	4.98%
Dillon Perennial ryegrass	ISI - K-2		1992	4.14%
Divine Perennial ryegrass	MB 1-1		1995	3.09%
DS 95-201 (Enchanted) Perennial ryegrass ²	DS 95-201, Enchanted		1999	1.12%
Easy Livin' Perennial ryegrass	LF-119, Easy Livin'		2002	1.50%
Ecologic Perennial ryegrass	LF-102, Ecologic		2002	1.49%
Edge II Perennial ryegrass	AC2		2008	0.52%
Edge Perennial ryegrass	Pick 715 , PR 872		1992	1.73%
Elegance Perennial ryegrass	WVPB 88-PR F-7		1995	1.51%
Elf Perennial ryegrass	BJ 1991		1994	0.75%
Elfin Perennial ryegrass	EL-2		2002	0.89%
Elite Perennial ryegrass	WVPB 88-PR C-23		1995	4.84%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Enterprise Perennial ryegrass	Enterprise, MRF 45		2004	2.76%
Envy Perennial ryegrass	SMTR		1991	0.22%
EP136 (Winterhawk) Perennial ryegrass ²	EP136, Winterhawk		2003	1.63%
EP39 (Pronto II) Perennial ryegrass ²	EP39, Pronto II		2000	1.75%
Equal Perennial ryegrass	WVPB 89-PR 89-57		1994	1.98%
Esquire Perennial ryegrass	WX2-64, Esquire		2000	3.10%
Esteem Perennial ryegrass	MP88, Tiarra, Esteem		2002	0.43%
Evening Shade Perennial ryegrass	VD3cl		1995	1.17%
Exacta Perennial ryegrass	LTP-3351, Exacta		2000	1.22%
Excel Perennial ryegrass	M-B 1-5	Romareda	1995	1.53%
Express Perennial ryegrass	NY88		1992, 1998	4.00%
Extreme Perennial ryegrass	JR-317, Superfly, Extreme		2000	1.32%
Federation Perennial ryegrass	MRF 41, Federation		2002	2.74%
Fiesta 3 Perennial ryegrass	Pick F3, Fiesta 3		2000	1.02%
Fiesta 4 Perennial ryegrass	Pick F4		2007	1.58%
Fiesta II Perennial ryegrass	D114	PICKWICK	1994	1.14%
Firebolt Perennial ryegrass	PRG HS-01-09		2005	0.63%
Florida 80 Annual ryegrass			1992	98.89%
Galaxy Perennial ryegrass	JR-128, Spyglass, Galaxy		2000	1.19%
Gallery Perennial ryegrass	MB 412, Gallery		2002, 2004	1.68%
Garibaldi Perennial ryegrass	Garibaldi		2008	13.01%
Gator II Perennial ryegrass	ISI-RUPR, RUPR, Gator II		1997	2.50%
Gator Perennial ryegrass			1995	0.88%
Gettysburg Perennial ryegrass	WVPB 88-PR PRDR (NJDR-87)		1996	2.74%
GoalKeeper II Perennial ryegrass	JR-114		2007	2.38%
Goalkeeper Perennial ryegrass	J-1704		1999	0.82%
Grand Slam Perennial ryegrass	PST-2L96, Grand Slam		2003	0.40%
Gray Star Perennial ryegrass	PST-2LGL, Gray Star		2005	1.20%
Grazer Annual ryegrass	Grazer Reseeding		1995	99.78%
Greenland Perennial ryegrass	Pick 9100		1995	1.20%
Greenville Perennial ryegrass	OSP-002, Greenville		2004	2.61%
Grimalda Perennial ryegrass			1991	2.00%
Gulf Annual ryegrass			1996	99.02%
Halo Perennial ryegrass	KN42		2007	2.87%
Harrier Perennial ryegrass	SRX 4UP3, UP		2007	0.39%
Hawkeye Perennial ryegrass	SRX 4RHT, Hawkeye		2003	0.23%
Headstart 2 Perennial ryegrass	PRG HS-01-07, Headstart 2		2005	0.65%
Headstart Perennial ryegrass	Pick PR 84-91, Headstart		1997	2.09%
High Life Perennial ryegrass	LF-105, High Life		2002	1.59%
Home Run Perennial ryegrass	RG3P, RG3EP		2007	0.58%
Icon Perennial ryegrass	MB 414, Icon		2002	2.21%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Imagine Perennial ryegrass	OFI-DW2, QS-DW2		1995	1.31%
Indy Perennial ryegrass	BMX-99-228, Indy		2003	0.25%
Inspire Perennial ryegrass	Rutgers 8000, Inspire, R8000		2002, 2004	0.72%
Integra II Perennial ryegrass	APR1659		2007	0.07%
Integra Perennial ryegrass	FPT, Integra		2002	0.12%
IS-OS (Ignite) Perennial ryegrass ²	IS-OS		2007	25.53%
IS-PR 256 (PR8821) Perennial ryegrass	IS-PR 256		2008	1.06%
IS-PR 274 (All*Star 3) Perennial ryegrass ²	IS-PR 274		2007	0.65%
IS-PR 276 (Amazing GS) Perennial ryegrass	IS-PR 276		2008	1.84%
IS-PR 312 (Keystone 2) Perennial ryegrass ²	IS-PR 312, MCK		2007	0.12%
Jackson Annual ryegrass	MSR-86-1		1992	98.80%
Jet Perennial ryegrass	BFP, Pennington BFP, Jet		2000	0.84%
Jiffie II Perennial ryegrass	Pick 01-3 PRG		2005	1.55%
Jiffie Perennial ryegrass	Pick PR 15-91, Jiffie		1997	6.06%
La Quinta Perennial ryegrass	JR-255		2007	1.45%
Laredo Perennial ryegrass	PNC-5		1996	0.53%
Legacy Perennial ryegrass	2WDR		1991	0.37%
Lindsay Perennial ryegrass	ISI PR 851		1991	1.72%
Line Drive GLS Perennial ryegrass	APR1797		2008	2.37%
Line Drive Perennial ryegrass	MB 47		1997	2.72%
Linn Perennial ryegrass			1991	5.00%
Lowgrow II Perennial ryegrass	PICK Lp EE-93	Sunbright	1998	1.35%
Lowgrow Perennial ryegrass	Lex 86 , PR 874, Pick LLG	Lex 86	1996	1.31%
LRF-94-C8 Perennial ryegrass ²	LRF-94-C8, C-8, LRF-C8		1997	0.64%
LS 2000 Perennial ryegrass ²	LS 2000, LS-PRG-800		2004	2.29%
LS 2100 Perennial ryegrass	PST-2SBE, Sierra, LS 2100		2004	2.94%
LS2200 Perennial ryegrass	2.0383, 02.0383, LS 2200		2006	0.79%
Lynx Perennial ryegrass	Pick EEC		1997	4.19%
Mach 1 Perennial ryegrass	Roberts 627, Mach 1		2003	0.47%
Magic II Perennial ryegrass	EP37, Magic II		2000	1.36%
Magic Perennial ryegrass	TPR 88B		1994	1.21%
Magnolia Annual ryegrass			1997	None ³
Majesty Perennial ryegrass	MB 43, MB 43		1997	1.59%
Manhattan 3 Perennial ryegrass	PST-2MS, Manhattan III	Triman	1996	0.88%
Manhattan 4 Perennial ryegrass	PST-2CRL, Manhattan 4		2003	0.26%
Manhattan II Perennial ryegrass		Numan	1991	0.65%
Mardi Gras Perennial ryegrass	ZPS-2NV		1998	1.07%
Marshall Annual ryegrass			1991	96.00%
MBH 2 Perennial ryegrass ²	MBH 2, MBH2		2007	0.81%
MHT (Arctic Green) Perennial ryegrass	MHT, Arctic Green		2008	0.22%
Monterey 3 Perennial ryegrass	JR-408		2007	1.63%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Monterey II Perennial ryegrass	JR-187	New Orleans	2001	1.94%
Monterey Perennial ryegrass	J-1706		1999	2.64%
Morningstar Perennial ryegrass	SYN P		1994	0.87%
MP139 (Seahawk) Perennial ryegrass ²	MP139, Seahawk		2003	1.46%
MP5 (PDQ) Perennial ryegrass ²	MP5, CAS-MP5, MP55, PDQ		2000	4.65%
MP58 (Splendor) Perennial ryegrass ²	MP58, Splendor		2002	0.44%
Mulligan Perennial ryegrass	NK 89001		1995	1.86%
Navajo Perennial ryegrass	2DPR	Comanche	1991	0.37%
Newlinn Perennial ryegrass	WVPB PR N-33, N-33		1996	5.85%
Nexus Perennial ryegrass	MB 49, Nexus		2000	2.01%
NightHawk Perennial ryegrass	WVPB 89-PR A-3		1993	1.39%
Nobility Perennial ryegrass	WVPB PR 91-131, Koos 91-131		1996, 1998	7.53%
Nomad Perennial ryegrass	JB-2		1995	1.03%
Notable Perennial ryegrass	AF		2007	0.54%
Nova Perennial ryegrass	SR 4031 PR 831		1991	1.00%
Omega 3 Perennial ryegrass	PST-2DR		1996	0.73%
Omni Perennial ryegrass	SRX 4220, Maxim, SRX 4210		1995	0.51%
Ortet (Boost) Perennial ryegrass ²	Ortet, AT-100, Boost		2006	49.83%
OSC108 (Whitney) Perennial ryegrass	OSC108, LF-108		2008	2.62%
OSC109 (Michelangelo) Perennial ryegrass	OSC109, LF-109		2008	2.59%
OSC110 (Edison) Perennial ryegrass	OSC110, LF-110		2008	1.61%
OSC112 (Newton) Perennial ryegrass	OSC112, LF-112		2008	0.87%
OSC116 (Galileo) Perennial ryegrass	OSC116, LF-116		2008	0.36%
Overdrive Perennial ryegrass	BSP-1, Overdrive, BSP		2007	0.67%
Pageant II Perennial ryegrass ²	Pratum P-2		2001	3.32%
Pageant Perennial ryegrass	WVPB PR C-24, C-24		1995	2.22%
Palace Perennial ryegrass	IS-PR 273		2007	0.14%
Palmer II Perennial ryegrass	P89		1993	1.51%
Palmer III Perennial ryegrass	LRF-94-MPRH, MPRH, LRF-MPRH		1997	0.23%
Palmer IV Perennial ryegrass	IG3, 1G3, Palmer IV		2004	1.76%
Palmer Perennial ryegrass			1993	1.04%
Panterra Annual ryegrass	BAR LM1001B, BAR Lm 1001b, TXR98-DBDF		2006	98.36%
Panther GLS Perennial ryegrass	APR1662		2008	0.83%
Panther Perennial ryegrass	ZPS PR1		1998	1.18%
Paragon Perennial ryegrass	MML, TMI-MML		2001	0.88%
Partner Perennial ryegrass	Partner, MRF 43		2004	2.83%
Passerel Plus Annual ryegrass	Passerel Select, AAR-1		2001	98.83%
Passion Perennial ryegrass ²	Passion, RAD-PR9, PR9		2005	1.01%
Passport Perennial ryegrass	PST-2FF	Romeo	1996	1.06%
Patriot 3 Perennial ryegrass	Patriot 3		2002	2.10%
PATRIOT 4 Perennial ryegrass	PATRIOT 4		2008	0.88%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Patriot II Perennial ryegrass			1995	0.42%
Pavilion Perennial ryegrass	HMX-99-226, Pavilion, HMX 226		2003	0.20%
Pearl II Perennial ryegrass	EDP, Pearl II, EPD		2002	1.00%
Pearl Perennial ryegrass	CAS-EP20, EP20 DR		1998	1.86%
Pegasus Perennial ryegrass	WVPB-PR-A-5		1995	2.41%
Pennant II Perennial ryegrass	MB 42		1997	1.63%
Pennant Perennial ryegrass			1991	0.50%
Pentium Perennial ryegrass	NJ 6401	Marquez	2004	0.86%
Peregrine Perennial ryegrass	APR1425(SR), APR1425, Peregrine		2007	0.15%
Phantom Perennial ryegrass	A7 White, A7, 7311		1998	2.19%
Phenom Perennial ryegrass	APR1660		2007	0.19%
PICK Lp Q-93 Perennial ryegrass ²	PICK Lp Q-93		1998	6.44%
Pinnacle II Perennial ryegrass	BAR Lp 9B-2, B-2, BAR 9 B2		2006	0.88%
Pleasure Perennial ryegrass	Syn Y		1992, 1998	4.09%
Pleasure Supreme Perennial ryegrass	PM 103		2008	0.49%
Pleasure XL Perennial ryegrass	Pick Lp I-93, Pleasure XL		2000	1.11%
PM 102 Perennial ryegrass	PM 102		2008	0.39%
PR 1-94 Perennial ryegrass	Pick PR 1-94		2003	0.95%
PR 8820 Perennial ryegrass	PR 8820/PR 9122	Essence	1995	0.79%
Prelude GLS Perennial ryegrass	APR1619		2008	0.98%
Prelude II Perennial ryegrass	Lofts 2P2		1993	2.25%
Prelude III Perennial ryegrass	LRF-94-B6, B-6, LRF-B6		1997	0.59%
Prelude IV Perennial ryegrass	A00, Prelude IV		2004	0.62%
Prelude Perennial ryegrass			1995	1.72%
Premier II Perennial ryegrass	BAR PRE II, BAR USA 94-II		2006	0.50%
Presidio Perennial ryegrass	CNV		2007	0.76%
Primary Perennial ryegrass	IS-PR 269		2007	0.18%
Priority Perennial ryegrass ²	Priority, DPR		2007	1.25%
Private Perennial ryegrass	ES45		2007	0.56%
Prizm Perennial ryegrass	ZPS-28D , 28D, PST-28D		1994	0.71%
Prospert Perennial ryegrass	AG-P981		2001	1.36%
Protocol II Perennial ryegrass ²	PR2, Smith PR2		2000	5.28%
Protocol Perennial ryegrass	WVPB-PR-93-3, Koos 93-3		1998	4.30%
Prototype Perennial ryegrass	DCM		2007	0.20%
Prowler Perennial ryegrass	APR777		2001	0.21%
PST-2AM (Manhattan 5 GLR) Perennial ryegrass ²	PST-2AM		2007	0.54%
PST-2GSM Perennial ryegrass ²	PST-2GSM		2007	0.80%
PST-2J15 Perennial ryegrass ²	PST-2J15		2007	0.42%
PST-2LAN Perennial ryegrass ²	PST-2LAN		2007	0.50%
PST-2MNG (Gray Fox) Perennial ryegrass ²	PST-2MNG, Gray Fox		2007	0.47%
Quartet Perennial ryegrass ²	Quartet, KLP947		2004,2007	7.31%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Quebec Perennial ryegrass	Pick PR C-97		2005	1.14%
Quest II Perennial ryegrass ²	Quest II, ABT 4.721		2006	0.83%
Quick Trans Perennial ryegrass	PST-3BK		2002	0.11%
Quicksilver Perennial ryegrass	PST-2G1, Quicksilver		2004	6.86%
Quickstart II Perennial ryegrass	Quickstart II, PST-3BKM		2006	0.06%
Quickstart Perennial ryegrass	2FQR		1991	0.18%
R2 Perennial ryegrass	ISI-R2, R2		1997	1.25%
Racer 2 Perennial ryegrass	Pick RC2	Pick RC2	2002	0.18%
Racer Perennial ryegrass	Pick Lp H-93		1999	1.23%
Radiant II Perennial ryegrass	APR1461, Radiant II		2004	0.80%
RAD-PR27 Perennial ryegrass	PR27, RAD-PR27, OS27		2008	2.25%
Ragnar II Perennial ryegrass ²	P201, Ragnar II		2006	4.20%
Ragnar Perennial ryegrass ²	P101, Ragnar		2006	6.28%
Refine Perennial ryegrass	PST-2RT, Refine		2005	0.45%
Regal 5 Perennial ryegrass	IS-PR 271		2007	0.20%
Regency Perennial ryegrass	75E		1991	0.99%
Repell GLS Perennial ryegrass	APR1669		2008	0.90%
Repell II Perennial ryegrass	LDRD	Verdi	1993	1.56%
Repell III Perennial ryegrass	LRF-94-C7, C7, LRF-C7		1997	0.80%
Repell Perennial ryegrass			1992	0.33%
Reveille Perennial ryegrass			1991	2.00%
Revenge GLX Perennial ryegrass	JR-348		2007	0.16%
Rio Annual ryegrass ²	WVPB LM AR-42 (Rio)		1995	98.97%
Riviera II Perennial ryegrass	Pick DKM		1995	1.08%
Riviera Perennial ryegrass	PICK 647		1992	0.58%
Roadrunner Perennial ryegrass	PST-2ET		1997	2.53%
Rodeo II Perennial ryegrass			1995	2.47%
Rosalin Perennial ryegrass	HE 411		1999	3.26%
Salinas Perennial ryegrass	PST-2SLX, Salinas		2003	0.85%
Saturn II Perennial ryegrass	PST-2ST		1998	0.85%
Sauvignon Perennial ryegrass	DPL 9603, Sauvignon		2006	1.28%
Secretariat Perennial ryegrass	RPBD		2002	1.49%
Seville II Perennial ryegrass	WX9-2000, Seville II		2002	1.33%
Seville Perennial ryegrass	PE8	Leonardo	1992	0.33%
Sherwood Perennial ryegrass	SRR		1996	1.08%
Shining Star Perennial ryegrass	PST-2B3		1994	0.10%
Showtime Perennial ryegrass	PST-2LA, Showtime		2005	2.98%
Silver Dollar Perennial ryegrass	PST-2J\$, Silver Dollar		2005	0.04%
SkyHawk Perennial ryegrass	MP42, Sky Hawk, SkyHawk		2002	2.09%
Slugger Perennial ryegrass	OS, Slugger		2007	1.41%
Sol Perennial ryegrass	EP 53, EP53, Sol		2002	0.55%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

**Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008**

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Sonata Perennial ryegrass	PST-2R3, 2R3		1998	1.20%
Soprano Perennial ryegrass	DP1		2007	0.19%
Splendid Perennial ryegrass	MB 411, Splendid		2002, 2004	2.16%
SR 4100 Perennial ryegrass		Athena	1994	0.37%
SR 4200 Perennial ryegrass	SRDR		1994	0.34%
SR 4220 Perennial ryegrass	SRX 4801, SR 4220		2003	0.27%
SR 4420 Perennial ryegrass	SRX 4820, SR 4420		2003	0.28%
SR 4500 Perennial ryegrass	SRX NJPR, SRX 4NJPR, SRX 4500		2001	0.24%
SR 4550 Perennial ryegrass	APR1557		2007	0.04%
SR 4600 Perennial ryegrass	SRX 4SP, SP		2007	0.45%
Stallion Select Perennial ryegrass	WVPB 89-105		1994	2.37%
Stallion Supreme Perennial ryegrass	WVPB PR E-1, PSI-E-		1998	1.16%
Stardance Perennial ryegrass	PST-2FE		1996	1.90%
Statesman II Perennial ryegrass	SS 33 DS		1995, 1998	8.42%
Statesman Perennial ryegrass	WVPB 88-PR D-12		1993	1.27%
Stellar Perennial ryegrass	CIS-PR-72, PR 72, CIS-PR72, Stellar		2002, 2007	2.46%
Summerset Perennial ryegrass	MB 413, Summerset		2002, 2004	1.35%
Sunkissed Perennial ryegrass	4.834, 834, ABT-99-4.834, Sunkissed		2004	0.83%
Sunshine 2 Perennial ryegrass	PRG HS-01-08, Sunshine 2		2005	2.01%
Sunshine Perennial ryegrass	Pick Lp 102-92		1999	2.65%
Superstar Perennial ryegrass	EP57, Superstar		2002	3.46%
Surrey Annual ryegrass	Florida 1986 LR		1992	98.91%
TAM 90 Annual ryegrass	TX-R-85-2		1994	98.45%
Target Perennial ryegrass	TPR 88A	Libra	1991	3.28%
Tee-Lee Perennial ryegrass	TR47		2007	1.22%
Terradyne Perennial ryegrass	BMX-99-225, Terradyne, ABT 4.960, 99-4.960		2003	0.18%
Tonga Perennial ryegrass			1996	11.53%
Top Gun II Perennial ryegrass	JR-324, Top Gun II		2006	2.42%
Top Gun Perennial ryegrass	J-1703, 93-1703		1999, 2001	1.15%
Top Hat Perennial ryegrass	ISI APR		1995	0.77%
Topeka Perennial ryegrass	WVPB 88-PR D-10		1993	2.34%
Tove Perennial ryegrass			1998	17.48%
Twister Perennial ryegrass	WVPB-PR-90-2, KOOS 90-2		1994	3.85%
Vail Perennial ryegrass	P22, LP22, Vail		2000	0.82%
Vantage Perennial ryegrass	PR 862		1991	2.19%
VB 77 Perennial ryegrass	VB 77		2008	0.77%
Vibrant Perennial ryegrass ²	Lewis Seed PR#1, Lewis #1, WVPB-PR-Lewis #1, Vibrant		2000	4.30%
Vivid Perennial ryegrass	WX2-65		1998	1.24%
Vixen Perennial ryegrass	MRF 42, Vixen		2002	2.53%
Voyager Perennial ryegrass	Voyager		2004	4.03%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.

**Variety Fluorescence Levels Recognized by the
AOSCA National Grass Variety Review Board
As of March 5, 2008**

Variety and Kind	Experimental Designation	OECD Synonym Name ¹	Year Approved	Variety Fluorescence Level
Wayfarer Perennial ryegrass	L44		2007	1.41%
Whistler Perennial ryegrass	MP56, MP-56, Black Pearl, Whistler, LP56, EP56		2003	0.53%
Wilmington Perennial ryegrass	MB 48, Wilmington		2000	0.17%
Wind Dance 2 Perennial ryegrass	PWDR		2007	0.98%
Wind Dance Perennial ryegrass	MB 46		1998	1.17%
Wind Star Perennial ryegrass	PST 28M		1996	0.47%
Wizard Perennial ryegrass	MB-41	Sardinero	1995	2.57%
WVPB PR C-2 Perennial ryegrass ²	WVPB PR C-2, C-2		1998	8.65%
WVPB-PR-93-KFK (Spellbound) Perennial ryegrass ²	WVPB-93-KFK, WVPB-PR-93-KFK, WVPB-PR-KFK		1998	3.84%
WVPB-PR-Koos-95-9 (Breeze II) Perennial ryegrass ²	WVPB-PR-Koos-95-9, Koos 95-9, Breeze II		1999	6.85%
WVPB-PR-RS-2 Perennial ryegrass ²	WVPB-PR-RS-2, WVPB-RS-2, RS-II		1999	1.59%
WVPB-XB-2 Perennial ryegrass ²	WVPB-XB-2, SB-2		2000	26.71%
WVPB-XP-6 Perennial ryegrass ²	WVPB-XP-6, XP-6		2000	21.69%
Yorktown III Perennial ryegrass	LDRF		1993	1.42%

1. Name not acceptable for sales in the USA.
2. Experimental designation and/or variety.
3. Exempt from varietal fluorescence testing calculations.