

**A REPORT OF THE  
NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES  
VARIETY REVIEW BOARD**



**ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES**

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES  
VARIETY REVIEW BOARD REPORT ©2009

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(JANUARY 2009)

The Association of Official Seed Certifying Agencies (AOSCA) National Alfalfa and Miscellaneous Legumes Variety Review Board reviewed the following varieties on January 13, 2009, in Las Vegas, NV. The Board recommended the inclusion of these varieties for certification. Seed of these varieties may be certified, providing production meets all standards of the Seed 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 Alfalfa and Miscellaneous Legumes Variety Review Board by the applicants. The National Alfalfa and Miscellaneous Legumes Variety Review Board makes judgments regarding recommendation of varieties for inclusion into certification based on the data supplied. Beyond this, the National Alfalfa and Miscellaneous Legumes 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 Alfalfa and Miscellaneous Legumes Variety Review Board can be obtained from:

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Respectively submitted,

Mike D. Moore, Chair  
National Alfalfa and Miscellaneous Legumes Variety Review Board

## 2009 AOSCA ALFALFA & MISC LEGUMES NVRB

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**PLACING THE CURSOR OVER THE DESIRED VARIETY/EXPERIMENTAL DESIGNATION & CLICKING WILL TAKE YOU DIRECTLY TO THE SUMMARY DESCRIPTION.**

**Breeding History:**

243 is a synthetic variety with 213 parent plants selected sequentially for resistance to Phytophthora root rot, Aphanomyces root rot, and anthracnose. Parent plants were selected from crosses between selections of various populations from three-year old Pennsylvania yield trials, three year old Wisconsin yield trials, and from three-year old Wisconsin nurseries. Yield trial and nursery source plants were selected from various populations that were developed by phenotypic recurrent selection for winter hardiness, leaf disease resistance, high leaf to stem ratio, fast recovery, standability, high NDFD and low ADL (using Near Infrared Reflectance Spectroscopy), high milk per acre using Milk2000, high forage dry matter yield, and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of 243 traces to the following germplasm sources: GH 717 (38%), Stealth SF (38%), CW 04-105a (13%) and CW 04-105b (11%). Breeder seed was produced under cage isolation near Woodland, California in 2004. Seed was bulk harvested from all parent plants.

**Area of Probable Adaptation:**

243 is adapted to the North Central, and East Central areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain and Winterhardy Intermountain areas of the U.S. areas of the U.S. 243 has been tested in Iowa, Minnesota, Ohio, Pennsylvania, and Wisconsin.

**Agronomic & Botanical Characteristics:**

243 is a moderately dormant variety with fall dormancy similar to FD class 5 check varieties. Flower color observed in the Syn.2 generation is approximately 100% purple. 243 has low multifoliolate leaf expression rating similar to Low MF check variety.

243 has high resistance to anthracnose (race 1), Aphanomyces root rot (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Verticillium wilt; with resistance to pea aphid; with moderate resistance to blue alfalfa aphid; and low resistance to cow pea aphid. Reaction to the spotted alfalfa aphid, stem nematode and root knot nematode has not been tested.

**Procedures for Maintaining Seed Stock:**

Seed increase of 243 is on a limited generation basis with one generation of breeder and two generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2004. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

**Date Certified Seed First Offered for Sale:**

Certified seed of 243 will be available in 2009.

**PVP Information:**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name: 243 Date submitted November 30, 2008

Experimental designations: CW 044031



## CW 054033

### **Breeding History:**

CW 054033 is a synthetic variety with 225 parent plants selected sequentially for resistance to Phytophthora root rot, Aphanomyces root rot, and anthracnose. Parent plants were selected from crosses between selections of various populations from three-year old Wisconsin nurseries for high forage yield, fast recovery, improved standability or lodging resistance, and high NDFD and low ADL (using Near Infrared Reflectance Spectroscopy). Nursery source plants were selected from various populations that were developed by phenotypic recurrent selection for winter hardiness, leaf disease resistance, high leaf to stem ratio, fast recovery, standability, high NDFD and low ADL (using Near Infrared Reflectance Spectroscopy), high milk per acre using Milk2000, high forage dry matter yield, and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of CW 054033 traces to the following germplasm sources: PGI 437 (55%), RADAR (5%), Europe (2%), Mercedes (1%), CW 05-211 (7%), CW 05-213 (20%), and CW 05-214 (10%). Breeder seed was produced under cage isolation near Woodland, California in 2005. Seed was bulk harvested from all parent plants.

### **Area of Probable Adaptation:**

CW 054033 is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain and Winterhardy Intermountain areas of the U.S. areas of the U.S. CW 044031 has been tested in Iowa, Minnesota, Ohio, Pennsylvania, and Wisconsin.

### **Agronomic & Botanical Characteristics:**

CW 054033 is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. Flower color observed in the Syn.2 generation is approximately 95% purple and 5% variegated. CW 054033 has no multifoliolate leaf expression rating similar to trifoliolate check variety. CW 054033 has resistance to lodging with standability rating similar to the class 7 check variety.

CW 054033 has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, and Verticillium wilt; with resistance to Aphanomyces root rot (race 1), pea aphid, and blue alfalfa aphid; and moderate resistance to Cow Pea Aphid. Reaction to the spotted alfalfa aphid, stem nematode and root knot nematode has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase of CW 054033 is on a limited generation basis with one generation of breeder and two generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2005. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed of CW 054033 will be available in 2009.

### **PVP Information:**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 30, 2008

Experimental designations: CW 054033



## CW 054038

### **Breeding History:**

CW 054038 is a synthetic variety with 104 parent plants selected sequentially for germination, seedling growth, and mature plant regrowth after repeated irrigation with 100 mM NaCl solution in the greenhouse. Parent plants were selected from crosses between selections from NaCl tolerant plants from source varieties of various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage dry matter yield, high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot, anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of CW 054038 traces to the following germplasm sources: PGI 427 (54%), Stealth SF (3%), CW 04-047 (5%), CW 04-061 (4%), CW 04-070 (6%), and CW 05-061 (28%). Breeder seed was produced under cage isolation near Woodland, California in 2005. Seed was bulk harvested from all parent plants.

### **Area of Probable Adaptation:**

CW 054038 is adapted to the North Central, East Central and Great Plains areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain and Winterhardy Intermountain areas of the U.S. areas of the U.S. CW 054038 has been tested in Iowa, Kansas, Minnesota, Ohio, Pennsylvania, and Wisconsin.

**Agronomic & Botanical Characteristics:** CW 054038 is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. Flower color observed in the Syn.2 generation is approximately 98% purple, 2% variegated, with a trace of white. CW 054038 has low multifoliolate leaf expression rating similar to Low MF check variety. CW 054038 has regrowth salt tolerance similar to the tolerant check variety.

CW 054038 has high resistance to anthracnose (race 1), Aphanomyces root rot (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Verticillium wilt, and pea aphid; with resistance to blue alfalfa aphid; and low resistance to Cow Pea Aphid. Reaction to the spotted alfalfa aphid, stem nematode and root knot nematode has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase of CW 054038 is on a limited generation basis with one generation of breeder and two generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2005. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed of CW 054038 will be available in 2009.

### **PVP Information**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 30, 2008

Experimental designations: CW 054038



## CW38099

### **Breeding History:**

CW 38099 is a synthetic variety with 531 parent plants which were selected for leaf disease resistance, aphid resistance, drought tolerance, frost tolerance, persistence and agronomic characteristics from space planted nurseries and yield trials in Argentina. Parent plants were selected from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 38099 traces to DK 170, DK 189, CW 194, WL 525HQ, 58N58, SP8900, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: *M. varia* (4%), Turkistan (15%), Flemish (6%), Chilean (10%), Peruvian (6%), Indian (24%), and African (35%).

### **Area of Probable Adaptation:**

CW 38099 is adapted to the Southwestern area of the U.S. and Argentina. It is intended for use in the Southwestern U.S. and Argentina. CW 38099 has been tested in California and Argentina.

### **Agronomic & Botanical Characteristics:**

CW 38099 is a nondormant variety with fall dormancy similar to the FD 8 check variety. Flower color observed in the Syn.2 generation is greater than 99% purple with a trace of variegated, cream, white, and yellow.

CW 38099 has high resistance to Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, and northern root knot nematode, with resistance to Fusarium wilt and Verticillium wilt, and moderate resistance to Bacterial wilt, stem nematode and cowpea aphid. The reaction to anthracnose (race 1) and Aphanomyces root rot (race 1) has not been adequately tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase of CW 38099 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.3 foundation seed requires consent of the breeder. Breeder seed (Syn.1) was produced under cage isolation near Tunuyan, Argentina in the 2002-2003 growing season. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed of CW 38099 will be available in 2009.

### **PVP Information**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 24, 2008

Experimental designations: CW 38099





## PGI 709

### **Breeding History:**

PGI 709 is a synthetic variety with 124 parent plants which were selected for cowpea aphid resistance. Parent plants were selected from a population selected for leaf disease resistance, aphid resistance, drought tolerance, frost tolerance, persistence and agronomic characteristics from space planted nurseries and yield trials in Argentina. Parentage of PGI 709 traces to Stamina GT6, Victoria, Sutter, WL 457, DK 170, Diamond, 5715, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: *M. varia* (4%), Turkistan (15%), Flemish (6%), Chilean (12%), Peruvian (6%), Indian (23%), and African (34%).

### **Area of Probable Adaptation:**

PGI 709 is adapted to the Southwestern area of the U.S.. It is intended for use in the Southwestern U.S. and Argentina. PGI 709 has been tested in California.

### **Agronomic & Botanical Characteristics:**

PGI 709 is a nondormant variety with fall dormancy similar to the FD 7 check variety. Flower color observed in the Syn.2 generation is greater than 99% purple with a trace of variegated, cream, white, and yellow.

PGI 709 has high resistance to Fusarium wilt, Verticillium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, and northern root knot nematode, with resistance to Bacterial wilt and cowpea aphid, and moderate resistance to stem nematode. The reaction to anthracnose (race 1) and Aphanomyces root rot (race 1) has not been adequately tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase of PGI 709 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.3 foundation seed requires consent of the breeder. Breeder seed (Syn.1) was produced under cage isolation near Woodland, California in 2004. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed of PGI 709 will be available in 2009.

### **PVP Information:**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name: PGI 709 Date submitted November 24, 2008

Experimental designations: CW 047075



## Venus 4 PLUS T

### **Breeding History:**

Venus 4 PLUS T is a synthetic variety with approximately 200 parent clones. Parent clones trace to populations selected for resistance to Phytophthora Root Rot, Bacterial wilt, Fusarium wilt, Aphanomyces (Race 1), Stem Nematode, Grazing Tolerance, and Wheel Traffic/Compaction Tolerance. Recurrent phenotypic selection was used in the development of the parent populations. Final selections were a combination of experimental populations and field selections from Idaho, Illinois, and Wisconsin, selected for overall root and crown health. Parentage traces to predominantly to grazing and traffic tolerant populations.

Breeder seed was produced under greenhouse and field isolation using transplanted parental clones and replicated cuttings. Breeder seed was produced in the spring of 2006 (greenhouse) and summer 2006 (field). Seed was harvested in total on all parents and bulked to form breeder seed.

### **Area of Probable Adaptation:**

Venus 4 PLUS T is adapted to be adapted to the North Central and Winterhardy Intermountain Regions of the U.S. It is intended for use in the North Central, Winterhardy Intermountain and Great Plains Regions of the U.S. It has been tested in Idaho and Nebraska.

### **Agronomic & Botanical Characteristics:**

Venus 4 PLUS T is Moderately Dormant, similar to FD4 check. Flower color (Syn2) is 72% purple and 28% variegated with a trace of cream, yellow, and white.

Venus 4 PLUS T has high resistance to anthracnose (Race 1), bacterial wilt, Phytophthora root rot, Verticillium wilt, Fusarium wilt, Aphanomyces root rot (Race 1); with resistance to pea aphid, and moderate resistance to stem nematode. Reaction to blue alfalfa aphid, spotted alfalfa aphid, and root knot nematode has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation each of breeder and foundation and two generations of certified seed classes. Breeder (Syn.1), foundation (Syn.2 or Syn.3), and certified (Syn.2, Syn.3, or Syn.4) classes will be recognized. Production of (Syn.3) foundation seed requires consent of the breeder. Breeder seed (Syn.1) was produced near Caldwell, Idaho in 2006. Cal/West Seeds will maintain sufficient foundation (Syn.2 or Syn.3) seed for the projected life of the variety.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be available in 2009.

### **PVP Information**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: Venus 4 PLUS T Date submitted November 26, 2008

Experimental designations: TS 4013



# Olympian

## Breeding History:

Olympian is a synthetic variety with 200 parent plants that were selected sequentially for resistance to Phytophthora root rot, Aphanomyces root rot, and anthracnose and for multifoliolate leaf expression. Parent plants were selected from crosses between selections of various populations from three-year old Minnesota yield trials, five-year old Pennsylvania yield trials, three and five-year old Wisconsin yield trials, and from three-year old Wisconsin nurseries. Yield trial source varieties and nursery source plants were derived from various populations that were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot, anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Olympian traces to the following germplasm sources: 512 (5%), 8930MF (2%), 9429 (2%), A4230 (2%), Big Horn (5%), DK 142 (3%), Foremost (3%), GH 700 (4%), Radiant (2%), Sprint (2%), WinterGold (2%) miscellaneous Cal/West Seeds breeding populations (70%). Breeder seed was produced under cage isolation near Woodland, California in 2000. Seed was bulk harvested from all parent plants.

## Area of Probable Adaptation:

Olympian is adapted to the North Central, East Central, and Great Plains areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain and Winterhardy Intermountain areas of the U.S. areas of the U.S. Olympian has been tested in Wisconsin, Iowa, Minnesota, Indiana, Pennsylvania, Ohio, and Nebraska.

## Agronomic & Botanical Characteristics:

Olympian is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple, and 1% variegated. Olympian has high multifoliolate leaf expression.

Olympian has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (race 1), with resistance to pea aphid, blue alfalfa aphid, stem nematode, and root knot nematode (*Meloidogyne hapla*), and moderate resistance to spotted alfalfa aphid.

## Procedures for Maintaining Seed Stock:

Seed increase of Olympian is on a limited generation basis with two generations each of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2000. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

## Date Certified Seed First Offered for Sale:

Certified seed of Olympian will be available in 2007.

## PVP Information

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name Olympian

Experimental Designation(s) CW 04029

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 30, 2008



## Legend Extra

### Breeding History:

Legend Extra is a synthetic variety with 205 parent plants that were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, Aphanomyces root rot, and anthracnose. Parent plants were selected from crosses between selections of various populations from five-year old Wisconsin, five-year old Pennsylvania, three-year old Iowa, three-year old Wisconsin yield trials, and from three-year old Wisconsin nurseries. Yield trial source varieties and nursery source plants were derived from various populations that were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot, anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Legend Extra traces to the following germplasm sources: Setter (1%), Abound (2%), 9326 (2%), 30-30Q (2%), FQ 315 (6%), TopHand (9%), Supreme (13%), Extreme (14%), and miscellaneous Cal/West Seeds breeding populations (51%). Breeder seed was produced under cage isolation near Woodland, California in 2001. Seed was bulk harvested from all parent plants.

### Area of Probable Adaptation:

Legend Extra is adapted to the North Central, East Central, and Great Plains areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain, and Winterhardy Intermountain areas of the U.S.. Legend Extra has been tested in Wisconsin, Pennsylvania, Kansas, and South Dakota.

### Agronomic & Botanical Characteristics:

Legend Extra is a moderately dormant variety with fall dormancy similar to FD class 3 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple, and 1% yellow, with a trace of cream.

Legend Extra has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), and root knot nematode (*Meloidogyne hapla*) with resistance to pea aphid, blue alfalfa aphid, and stem nematode and moderate resistance to cowpea aphid. Reaction to the spotted alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase of Legend Extra is on a limited generation basis with two generations each of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2001. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed of Legend Extra will be available in 2007.

### PVP Information

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name Legend Extra

Experimental Designation(s) CW 13019

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 30, 2008



# Caliber

## Breeding History:

Caliber is a synthetic variety with 65 parent plants that were selected sequentially for winter hardiness, high forage yield, high relative feed value, and multifoliolate leaf expression. Parent plants were selected from various populations from five-year old Wisconsin and Pennsylvania, three-year old Minnesota, Pennsylvania and Wisconsin yield trials, and from three-year old Wisconsin nurseries. Yield trial source varieties and nursery source plants were derived from various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage yield, high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Fusarium Wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot, anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Caliber traces to the following germplasm sources: Radiant (2%), Foremost (2%), A4230 (2%), Harmony (2%), FQ 315 (3%), 9429 (3%), GH 700 (3%), WinterGold (6%), Alliant (10%), and miscellaneous Cal/West Seeds breeding populations (67%). Breeder seed was produced under cage isolation near Woodland, California in 2002. Seed was bulk harvested from all parent plants.

## Area of Probable Adaptation:

Caliber is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain, and Winterhardy Intermountain areas of the U.S.. Caliber has been tested in Wisconsin, Iowa, and South Dakota.

## Agronomic & Botanical Characteristics:

Caliber is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple, and 1% variegated, with a trace of cream.

Caliber has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), pea aphid, blue alfalfa aphid, and root knot nematode (*Meloidogyne hapla*), and low resistance to cowpea aphid. Reaction to the spotted alfalfa aphid and stem nematode has not been tested.

## Date Certified Seed First Offered for Sale:

Seed increase of Caliber is on a limited generation basis with two generations each of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2002. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

## Date Certified Seed First Offered for Sale:

Certified seed of Caliber will be available in 2007.

## PVP Information

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name Caliber

Experimental Designation(s) CW 24005

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 30, 2008



## PGI 608

### Breeding History:

PGI 608 is a synthetic variety with 210 parent plants which were selected for aphid resistance, drought tolerance, frost tolerance, persistence and agronomic characteristics from space planted nurseries and yield trials in Argentina. Parent plants were selected from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of PGI 608 traces to 5681 (12%), DK 166 (10%), Atene (8%), Archer (5%), Alfa 50 (5%), Aspire (4%), 555 (4%), Mede (3%), Tahoe (3%), WL 320 (3%), Prince (2%), and miscellaneous Cal/West Seeds breeding populations (41%). Breeder seed (Syn.1) was produced under cage isolation near Mendoza, Argentina in 1999.

### Area of Probable Adaptation:

PGI 608 is adapted to the Moderately Winterhardy Intermountain and Southwest areas of the U.S. and Argentina and is intended for use in the Moderately Winterhardy Intermountain and Southwest areas of the U.S. and Argentina. PGI 608 has been tested in California and Argentina.

### Agronomic & Botanical Characteristics:

PGI 608 is a moderately dormant variety with fall dormancy similar to FD class 6 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple and 1% variegated with a trace of white, cream, and yellow.

PGI 608 has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, pea aphid, southern root knot nematode, and northern root knot nematode with resistance to spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Reaction to Aphanomyces root rot (race 1) has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase of PGI 608 is on a limited generation basis with two generations each of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Mendoza, Argentina in 1999. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed of CW PGI 608 will be available in 2007.

### PVP Information

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name PGI 608

Experimental Designation(s) CW 96108

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008



## PGI 909

### **Breeding History:**

PGI 909 is a synthetic variety with 61 parent plants which were selected for lygus tolerance and seed yield from space planted nurseries in California. Parent plants were selected from various populations which were developed by selecting for aphid resistance, drought tolerance, frost tolerance, persistence and agronomic characteristics from space planted nurseries and yield trials in Argentina. Parentage of PGI 909 traces to miscellaneous Cal/West Seeds breeding populations (100%). Approximate germplasm source contributions are as follows: M.varia (4%), Turkistan (10%), Flemish (4%), Chilean (10%), Peruvian (4%), Indian (25%), and African (43%).

### **Area of Probable Adaptation:**

PGI 909 is adapted to and intended for use in the Southwest area of the U.S., Mexico, and Argentina. PGI 909 has been tested in California, Mexico, and Argentina.

### **Agronomic & Botanical Characteristics:**

PGI 909 is a very nondormant variety with fall dormancy similar to FD class 9 check varieties. Flower color observed in the Syn.2 generation is greater than 99% purple with a trace of variegated, white, cream, and yellow.

PGI 909 has high resistance to Fusarium wilt, blue alfalfa aphid, stem nematode, pea aphid, northern root knot nematode, and southern root knot nematode with resistance to anthracnose (race 1), Phytophthora root rot, spotted alfalfa aphid, and bacterial wilt. Reaction to Verticillium wilt and Aphanomyces root rot (race 1) has not been adequately tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase of PGI 909 is on a limited generation basis with one generation of breeder and two generations of the foundation and certified seed classes. Breeder (Syn.1), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.3 foundation seed requires consent of the breeder. Breeder seed was produced under open isolation near Tranquility, California in 1999. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed of PGI 909 will be available in 2003.

### **PVP Information**

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name PGI 909

Experimental Designation(s) CW 99112

Date NA&MLVRB first accepted this variety January 2004

Date(s) previous amendments were accepted January 2006

Date amendment submitted November 26, 2008



## La Paloma

### Breeding History:

La Paloma is a synthetic variety with 204 parent plants which were selected for drought tolerance, heat tolerance, virus tolerance, and agronomic characteristics from yield trial selections in Saudi Arabia. Parent plants were selected from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of La Paloma traces to DK 194, SPS 9000, CW 101, PGI 1086, CUF-101, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: *M. varia* (1%), Turkistan (8%), Flemish (2%), Chilean (10%), Peruvian (6%), Indian (31%), and African (42%).

### Area of Probable Adaptation:

La Paloma is adapted to the Southwestern area of the U.S. It is intended for use in the Southwestern U.S. and Saudi Arabia. La Paloma has been tested in California.

### Agronomic & Botanical Characteristics:

La Paloma is a very nondormant variety with fall dormancy similar to the FD9 check variety. Flower color observed in the Syn.2 generation is 98% purple, and 2% variegated with a trace of cream, white, and yellow.

La Paloma has high resistance to Fusarium wilt, pea aphid, spotted alfalfa aphid, and southern root knot nematode, with resistance to Phytophthora root rot, blue alfalfa aphid, stem nematode, and moderate resistance to bacterial wilt. The reaction to anthracnose (race 1), Verticillium wilt, and Aphanomyces root rot (race 1) has not been adequately tested.

### Procedures for Maintaining Seed Stock:

Seed increase of La Paloma is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation seed requires consent of the breeder. Breeder seed (Syn.1) was produced under cage isolation near Al Kharj, Saudi Arabia in 2004. Sufficient foundation seed for the projected life of the variety will be maintained by Cal/West Seeds. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed of La Paloma will be available in 2008.

### PVP Information

No decision has been made regarding Plant Variety Protection. This information can be forwarded to the PVP office.

Variety Name La Paloma

Experimental Designation(s) CW 040096

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008





# Rugged

## Breeding History:

Rugged was selected for tolerance to continuous grazing by cattle (one cycle of phenotypic selection) while maintaining a large healthy crown and root system.

## Area of Probable Adaptation:

Rugged appears to be adapted to the North Central and East Central Regions of the U.S. It is intended for use in the North Central and East Central Regions of the U.S. as a grazing crop as well as for producing stored feed. It has been tested in Iowa, Wisconsin and Illinois.

## Agronomic & Botanical Characteristics:

Rugged is moderately dormant, similar to the FD 3 check. Winter survival is similar to the WS 2 check Vernal. Flower color of syn 2 generation is approximately 63% purple and 37% variegated with a trace of white, cream and yellow. Tolerance to continuous grazing is similar to Alfagraz.

Rugged has high resistance to bacterial wilt, Verticillium wilt, Fusarium wilt, Phytophthora root rot, anthracnose (race 1), Aphanomyces root rot (race 1) and pea aphid, and moderate resistance to stem nematode and Aphanomyces root rot (race 2). It has not been evaluated for resistance to blue alfalfa aphid, spotted alfalfa aphid and root knot nematode. Rugged has Tolerance to Salt (NaCl) at germination.

## Procedures for Maintaining Seed Stock:

Seed increase is limited to one generation each of breeder (syn 1), foundation (syn 2) and 2 generations of certified (syn 2 or 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 1, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1996. Cal-West will maintain sufficient seed stocks for the life of the variety.

## Date Certified Seed First Offered for Sale:

Certified seed will be available in 2002.

## PVP Information

Plant Variety Protection will not be applied for. This information can be forwarded to the P.V.P. office.

Variety Name Rugged

Experimental Designation(s) ZG 9632

Date NA&MLVRB first accepted this variety Approved 2002

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008



# Rebel

## Breeding History:

Rebel was selected for resistance to the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1) and Aphanomyces (race 1) plus two additional isolates. Phenotypic recurrent selection was used. Final selections were made from two-year old space plant selection nurseries near Napier, IA, Livingston and Marshfield, WI based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases, fall dormancy reaction and stem protein.

Breeder seed (syn 1) was produced in 1996 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk.

## Area of Probable Adaptation:

Rebel appears to be adapted to the North Central, East Central and Great Plains Regions of the U.S. It is intended for use in the North Central, East Central and Great Plains Regions of the U.S. It has been tested in Iowa, Illinois, Indiana, Wisconsin, Pennsylvania and Kansas.

## Agronomic & Botanical Characteristics:

Fall dormancy of Rebel is similar to the FD 4 check Saranac. Flower color of syn 2 generation is approximately 72% purple and 28% variegated with a trace of cream, yellow and white.

Rebel has high resistance to bacterial wilt, Verticillium wilt, Fusarium wilt, anthracnose (race 1), Phytophthora root rot, pea aphid, and Aphanomyces (race 1). It has moderate resistance to blue alfalfa aphid. It has not been tested for reaction to spotted alfalfa aphid, stem nematode or root knot nematode. Rebel has Tolerance to Salt (NaCl) at germination.

## Procedures for Maintaining Seed Stock:

Seed increase is limited to one generation each of breeder (syn 1), foundation (syn 2) and certified (syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 1, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1996. Cal-west will maintain sufficient seed stocks for the life of the variety.

## Date Certified Seed First Offered for Sale:

Certified seed will be available in 2000.

## PVP Information:

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name Rebel

Experimental Designation(s) ZN 9646

Date NA&MLVRB first accepted this variety January 2001

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008



# Bullseye

## Breeding History:

Bullseye is a synthetic variety with 500 parental clones. Parent clones trace to one population selected for resistance to Phytophthora root rot, bacterial wilt, and Verticillium wilt, spotted alfalfa aphid, stem nematode, and northern root knot nematode.

Recurrent phenotypic selection was used. Final selections were made from two and three year old nurseries near Nampa, Idaho based on overall root and crown health, and combined resistance to 10cal nematodes.

Parentage traces to a population related to the variety Archer. Breeder seed (Syn 1) was produced on cuttings of the parental clones near Nampa, Idaho, in 1998. Breeder seed was produced under field isolation.

## Area of Probable Adaptation:

Bullseye appears to be adapted to and is intended for use in the moderately winterhardy and winterhardy Intermountain regions of the U.S. It has been tested in Idaho and California. It is intended for use in these areas as hay, Haylage, greenchop, and dehydration.

## Agronomic & Botanical Characteristics:

Fall dormancy of Bullseye is similar to the FD 4 check Flower color in the Syn 2 is approximately 89% purple and 11% variegated with a trace of cream, yellow and white.

Bullseye has high resistance to, bacterial wilt, Verticillium wilt, Fusarium wilt, Phytophthora root rot, anthracnose (race 1), northern root knot nematode, resistance to stem nematode, moderate resistance to spotted alfalfa aphid, blue alfalfa aphid, Aphanomyces root rot (Race 1), low resistance to pea aphid, and is a poor host for the Columbia root knot nematode (Race 2.0). Bullseye has Tolerance to Salt (NaCl) at germination.

## Procedures for Maintaining Seed Stock:

Seed increase is limited to one generation of breeder seed (Syn 1), two generations of foundation (Syn 2) and two to three generations (Syn 2 or 3) of certified seed. Certified seed may be produced from either breeder or foundation classes. A 1, 3, and 6 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1998. Cal-west will maintain sufficient stocks for the projected life of the variety.

## Date Certified Seed First Offered for Sale:

Certified seed will be available in 2003

## PVP Information:

Plant Variety protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name Bullseye

Experimental Designation(s) ZX 0059D

Date NA&MLVRB first accepted this variety Approved 2003

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008



## Ruccus

### Breeding History:

Ruccus is a synthetic variety with 300 parental clones. Parent clones trace one population selected for resistance to Phytophthora root rot, anthracnose, bacterial wilt, Fusarium wilt, and Verticillium wilt, blue alfalfa aphid, spotted alfalfa aphid, pea aphid, stem nematode, and northern root knot nematode. Recurrent phenotypic selection was used. Final selections were made from two and three year old nurseries near Nampa, Idaho based on overall root and crown health. Parentage traces to experimental closely related to the variety Archer (80%), Lobo (10%), and Nema gone (10%). Breeder seed (Syn 1) was produced on cuttings of the parental clones near Nampa, Idaho, in 1993. Breeder seed was produced under field isolation. Approximate germplasm source contributions are: M. falcata (6%), Ladak (6%), M. varia (19%), Turkistan (13%), Flemish (30%), Chilean (96%), Peruvian (2%), Indian (2%), African (1%), Arabian (0%) and (12%) unknown sources.

### Area of Probable Adaptation:

Ruccus appears to be adapted to and is intended for use in winterhardy Intermountain region of the US. It has been tested in Idaho, and Washington.

### Agronomic & Botanical Characteristics:

Fall dormancy of Ruccus is similar to Dupuits. Flower color is approximately 88% purple and 12% variegated with a trace of cream, yellow and white.

Ruccus has high resistance to Fusarium wilt, and Phytophthora root rot; resistant to bacterial wilt, Verticillium wilt, spotted alfalfa aphid, pea aphid, and stem nematode; moderate resistant to anthracnose (race 1), and northern root knot nematode; and low resistance to blue alfalfa aphid. Ruccus has Tolerance to Salt (NaCl) at germination.

### Procedures for Maintaining Seed Stock:

Seed increase is limited to one generation of breeder seed (Syn 1), two generations of foundation and two to three generations of certified seed. Certified seed may be produced from either breeder or foundation classes. A 1, 3, and 6 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1993. Cal-West will maintain sufficient stocks for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified seed will be available in 2001

### PVP Information:

Plant variety protection will not be applied for. This information can be forwarded to the PVP office

Variety Name	<u>Ruccus</u>
Experimental Designation(s)	<u>ZX 9353, ABI 9353</u>
Date NA&MLVRB first accepted this variety	<u>Approved 2001</u>
Date(s) previous amendments were accepted	<u></u>
Date amendment submitted	<u>November 26, 2008</u>



## NY 0240

### **Breeding History:**

NY 0240 is the result of a population cross between two populations. The first population is Seedway 9558 after one cycle of selection for resistance to Phytophthora root rot. The second population traces back to a cross between Magnum III selected for resistance to anthracnose (Race 1) and Verticillium wilt and plants from multiple Cornell breeding populations related to Oneida VR, which was further selected for resistance to Verticillium wilt, anthracnose (Race 1), and Phytophthora root rot. Full-sib crosses between the populations were made by hand (~125 clones per population). Equal amounts of seed from each full-sib cross were bulked to form Syn. 1 seed.

### **Area of Probable Adaptation:**

NY 0240 is adapted to the North Central and East Central regions. This variety has been tested in New York and Pennsylvania and is intended for use in the North Central and East Central regions.

### **Agronomic and Botanical Characteristics:**

NY 0240 is Dormant similar to the FD3 check. Flower color (Syn. 3) is 78% purple, and 22% variegated with a trace of yellow, cream and white. Pod shape (Syn. 3) is 76% tightly coiled, 21% loosely coiled, and 3% crescent.

NY 0240 has high resistance to anthracnose (Race 1), and Fusarium wilt; with resistance to Verticillium wilt, bacterial wilt, and Phytophthora root rot. NY 0240 is susceptible to Aphanomyces root rot (Race 1).

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation each of breeder and foundation and two generations of certified seed classes. Breeder (Syn. 2), foundation (Syn. 3), and certified (Syn. 3 or Syn. 4) classes will be recognized. Production of Syn. 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Caldwell, ID in 2002. Enough seed was produced to last the life of the variety. Seed is maintained under environmentally controlled conditions at Cornell University in Ithaca, NY. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will first be marketed in 2009.

### **PVP Information**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: NY 0240 Date submitted Nov. 26, 2008

Experimental designations: NY 0240



## BigSky Ladak

### Breeding History:

BigSky Ladak is a 135 clone synthetic variety. One hundred plants were selected using phenotypic selection out of a 27-year-old stand of Ladak in eastern Washington. These plants were selected for visual herbage yield, seed yield, drought tolerance, root and crown health. Thirty five plants were selected for resistance to *Phytophthora* root rot and *Aphanomyces* root rot from Shaw. Selected plants were inter-pollinated in isolation near Sloughhouse, CA in 2005 and equally bulked to produce Syn.1 as Breeder Seed.

### Area of Probable Adaptation:

BigSky Ladak is adapted to the North Central Region of the United States and intended for use across the North Central and Winter Intermountain Regions of the United States. The state where it has been tested is Wisconsin.

### Agronomic and Botanical Characteristics:

BigSky Ladak is a dormant variety similar to the fall dormancy 3 check. Flower color in the Syn. 2 generation is 70% purple, 30% variegated with trace amounts of cream, white and yellow.

BigSky Ladak has high resistance to bacterial wilt, northern root-knot nematode; resistance to *Fusarium* wilt, *Phytophthora* root rot, stem nematode; moderate resistance to anthracnose (Race 1), *Aphanomyces* root rot (Race1), pea alfalfa aphid and low resistance to *Verticillium* wilt. Big Sky Ladak has not been tested for resistance to spotted alfalfa aphid and blue alfalfa aphid.

### Procedures for Maintaining Seed Stock:

Breeder seed (Syn. 1) was produced by equally bulking seed of parent plants which were crossed in isolation near Sloughhouse, CA in 2005. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. One generation each of Breeder, Foundation and two generations of Certified seed classes are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient Foundation seed for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified Seed will be available spring of 2010.

### PVP Information:

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: BigSky Ladak Date submitted 11/26/08

Experimental designations: DS861



# Profuse BR

## Breeding History:

Profuse BR is an 84 clone synthetic. Parent plants were selected for branch root, multileaf expression and resistance to the disease complex of *Phytophthora* root rot and *Aphanomyces* root rot (Race 1 and 2) in a disease nursery near Marshfield, WI. These plants were progeny tested for high levels of resistance to the root rot complex of *Phytophthora* root rot and *Aphanomyces* root rot (Race 1 and 2). The source populations for Profuse BR are from elite Dairyland experimental germplasm. Selected plants were inter-pollinated near Sloughhouse, CA in 2005 and equally bulked to produce Syn. 1 as Breeder seed.

## Area of Probable Adaptation:

Profuse BR is adapted to the North Central Region of the United States and intended for use across the North Central and East Central Regions of the United States. The states where it has been tested are Wisconsin and Minnesota.

## Agronomic and Botanical Characteristics:

Profuse BR is a moderately dormant variety similar to the fall dormancy 4 check. Profuse BR is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

Profuse BR has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), northern root-knot nematode, stem nematode; resistance to *Aphanomyces* root rot (Race2) and southern root-knot nematode. Profuse BR has not been tested for resistance to spotted alfalfa aphid, pea aphid and blue alfalfa aphid.

## Procedures for Maintaining Seed Stock:

Breeder seed (Syn. 1) was produced by bulking seed of parent plants which were crossed in isolation near Sloughhouse, CA in 2005. Seed from parental clones were bulked. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. One generation each of Breeder, Foundation and two generations of Certified seed classes are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient Foundation seed for the projected life of the variety.

## Date Certified Seed First Offered for Sale:

Certified Seed will be available spring of 2010.

## PVP Information:

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: Profuse BR Date submitted 11/26/08  
Experimental designations: DS701BR



## DS721

### **Breeding History:**

DS721 is a 37 clone synthetic. Parent plants were selected for deep set crowns, early fall dormancy and resistance to the disease complex of bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot and *Aphanomyces* root rot (Race 1 and 2). The source populations for DS721 are from elite Dairyland experimental germplasm (86%), Thor (3%), Bounty (8%), and TMF421 (3%). Selected plants were inter-pollinated near Sloughhouse, CA in 2002 and bulked to produce Syn. 1 as Breeder seed.

### **Area of Probable Adaptation:**

DS721 is adapted to the North Central Region of the United States and intended for use across the North Central and Winterhardy Intermountain regions of the United States. The state where it has been tested is Wisconsin.

### **Agronomic and Botanical Characteristics:**

DS721 is a dormant variety similar to the fall dormancy 2 check. DS721 is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

DS721 has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), northern root-knot nematode; resistance to stem nematode, southern root-knot nematode and moderate resistance to *Aphanomyces* root rot (Race2). DS721 has not been tested for resistance to spotted alfalfa aphid, pea aphid and blue alfalfa aphid.

### **Procedures for Maintaining Seed Stock:**

Breeder seed (Syn. 1) was produced by bulking seed of parent plants which were crossed in isolation near Sloughhouse, CA in 2002. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. One generation each of Breeder, Foundation and two generations of Certified seed classes are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient Foundation seed for the projected life of the variety.

### **Date Certified Seed First Offered for Sale:**

Certified Seed will be available spring of 2010.

### **PVP Information:**

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted 11/26/08

Experimental designations: DS721





## DS722

### **Breeding History:**

DS722 is an 80 clone synthetic. The parent clones were selected out of disease nurseries for *Phytophthora* root rot, *Aphanomyces* root rot (Race 1 and Race 2) and rhizomatous crown tendencies. All of parent plants trace back to Dairyland experimental germplasm. Parent plants were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughouse, California in 2005 to produce Syn. 1 as Breeder Seed. Seed from parent plants were bulked to produce Breeder seed.

### **Area of Probable Adaptation:**

DS722 is adapted to the North Central Region of the United States and intended for use across the North Central and Winterhardy Intermountain regions of the United States. The state where it has been tested is Wisconsin.

### **Agronomic and Botanical Characteristics:**

DS722 is a dormant variety similar to the fall dormancy 2 check. DS722 is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

DS722 has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt; resistance to *Aphanomyces* root rot (Race1) . DS722 has not been tested for resistance to northern root-knot nematode, stem nematode, spotted alfalfa aphid, pea aphid and blue alfalfa aphid.

### **Procedures for Maintaining Seed Stock:**

Breeder seed (Syn. 1) was produced by bulking seed of parent plants which were crossed in isolation near Sloughouse, CA in 2005. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. One generation each of Breeder, Foundation and two generations of Certified seed classes are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient Foundation seed for the projected life of the variety.

### **Date Certified Seed First Offered for Sale:**

Certified Seed will be available spring of 2010.

### **PVP Information:**

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted 11/26/08

Experimental designations: DS722



## Magnum VI-Wet

### Breeding History:

Magnum VI-Wet is a 103 clone synthetic. One half of the plants were selected for branch root expression and resistance to a disease complex of *Phytophthora* root rot and *Aphanomyces* root rot (Race 1 and 2) in disease nursery near Appleton, WI. These plants were progeny tested for high levels of resistance to *Aphanomyces* root rot (Race 2). The selected plants make up the first half of Magnum VI-Wet. The other half of the plants was selected for resistance to *Aphanomyces* Race 2 and agronomic traits such as seed yield and plant vigor. The source populations for Magnum VI-Wet are from elite Dairyland experimental which are primarily derived from Magnum V-Wet. Selected plants from each respective population were separately hand inter-pollinated near Clinton, WI in 2004 and equally bulked to produce Syn. 1 as Breeder seed.

### Area of Probable Adaptation:

Magnum VI-Wet is adapted to the North Central and East Central Region of the United States and intended for use across the North Central and East Central Regions of the United States. The states where it has been tested are Wisconsin and New York.

### Agronomic and Botanical Characteristics:

Magnum VI-Wet is a moderately dormant variety similar to the fall dormancy 4 check. Magnum VI-Wet is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

Magnum VI-Wet has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), northern root-knot nematode, stem nematode; resistance to *Aphanomyces* root rot (Race2), spotted alfalfa aphid and pea aphid. Magnum VI-Wet has not been tested for resistance to blue alfalfa aphid.

### Procedures for Maintaining Seed Stock:

Breeder seed (Syn. 1) was produced by bulking seed of parent plants which were crossed in greenhouse isolation near Clinton, WI in 2004. Seed from parental clones were bulked. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. One generation each of Breeder, Foundation and two generations of Certified seed classes are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient Foundation seed for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified Seed will be available spring of 2008.

### PVP Information:

Application for the Plant Variety Protection is undecided.  
Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: Magnum VI-Wet Date submitted 11/26/08

Experimental designations: DS617



## Baralfa X42

### Breeding History:

Baralfa X42 is a three clone 75-95% hybrid alfalfa variety. Parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were tested for male sterility, maintaining and restoration ability. The parent plants were also progeny tested for one or more of the following traits: forage yield, stand persistence, forage quality, resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, anthracnose (Race 1), Verticillium wilt and Aphanomyces root rot (Race 1). The female line traces to DS experimentals, maintainer trace to Thor and DS experimentals and restorer line trace to a DS experimental selection. Female seed (DS-1006) was generated by crossing a cytoplasmic male sterile female line by a maintainer line in field isolation and inter-pollinated by honey, leaf cutting and bumble bees. The female plants were harvested to produce the female Breeder Seed near Sloughhouse, California in 2002-04. Female seed was kept separate each year to produce Breeder seed. Male Breeder seed (Syn. 1) (942176) was produced in 2002 near Sloughhouse, CA.

### Area of Probable Adaptation:

Baralfa X42 is adapted and intended for use across the North Central and Great Plains Regions of the United. The states where it has been tested are Wisconsin, Iowa, Kansas and Minnesota.

### Agronomic and Botanical Characteristics:

Baralfa X42 is a moderately dormant variety similar to the fall dormancy 4 check. Baralfa X42 is very winter hardy similar to the winter survival 2 check. Flower color of the male line in the Syn. 2 and female (F1) generation is 92% purple, 7% variegated, less than 1% white with trace amounts of yellow and cream. The male of msSunstra-406 is 1% white seeded.

Baralfa X42 has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), northern root-knot nematode, stem nematode; resistance to southern root-knot nematode and pea aphid. Baralfa X42 has not been tested for resistance to spotted alfalfa aphid and blue alfalfa aphid.

### Procedures for Maintaining Seed Stock:

Female Breeder seed was produced by crossing the cytoplasmic male sterile line (A) by the maintainer line (B) in field isolation near Sloughhouse, CA in 2002-04. Female seed was kept separate across production years. Male Breeder seed (Syn. 1) was produced in field isolation near Sloughhouse in 2002. Male Foundation seed (Syn. 2) was produced from Breeder seed. Hybrid seed (F1) was produced from crossing female seed by either Breeder or Foundation male seed. Two generations of male seed are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient seed for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified Seed will be available spring of 2009.

### PVP Information:

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: Baralfa X42 Date submitted 11/26/08  
Experimental designations: msSunstra-406



## Hybri+Jade

### Breeding History:

Hybri+Jade is a three clone 75-95% hybrid alfalfa variety. Parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were tested for male sterility, maintaining and restoration ability. The parent plants were also progeny tested for one or more of the following traits: forage yield, stand persistence, forage quality, resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, anthracnose (Race 1), Verticillium wilt and Aphanomyces root rot (Race 1). The female line traces to DS experimentals, maintainer trace to Thor and DS experimentals in which greater than 50% trace back to Jade. The restorer line trace to Extend, 6410 and WL342. Female seed was generated by crossing a cytoplasmic male sterile female line by a maintainer line in field isolation and inter-pollinated by honey, leaf cutting and bumble bees. The female plants were harvested to produce the female Breeder Seed near Sloughhouse, California in 2003-04. Male Breeder seed (Syn. 1) was produced in 2003 near Sloughhouse, CA.

### Area of Probable Adaptation:

Hybri+Jade is adapted to the North Central and East Central Region of the United States and intended for use across the North Central, Great Plains and East Central Regions of the United States. The states where it has been tested are Wisconsin, Minnesota, Pennsylvania, Michigan and Iowa.

### Agronomic and Botanical Characteristics:

Hybri+Jade is a moderately dormant variety similar to the fall dormancy 4 check. Hybri-Jade is very winter hardy similar to the winter survival 2 check. Flower color of the male line in the Syn. 2 and female (F1) generation is 90% purple, 9% variegated, less than 1% white with trace amounts of yellow and cream. The male of Hybri+Jade is 1% white seeded.

Hybri+Jade has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, stem nematode; resistance to *Aphanomyces* root rot (Race1), northern root-knot nematode and southern root-knot nematode. Hybri+Jade has not been tested for resistance to pea aphid, blue alfalfa aphid and spotted alfalfa aphid.

### Procedures for Maintaining Seed Stock:

Female Breeder seed was produced by crossing the cytoplasmic male sterile line (A) by the maintainer line (B) in field isolation near Sloughhouse, CA in 2004-05. Female seed was kept separate across production years. Male Breeder seed (Syn. 1) was produced in field isolation near Sloughhouse in 2003. Male Foundation seed (Syn. 2) was produced from Breeder seed. Hybrid seed (F1) was produced from crossing female seed by either Breeder or Foundation male seed. Two generations of male seed are recognized. A maximum of three harvest years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Dairyland Research International will maintain sufficient seed for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified Seed will be available spring of 2009.

### PVP Information:

Application for the Plant Variety Protection is undecided. Information in the NAVRB application can be forwarded to the PVP office.

Variety Name: Hybri+Jade

Experimental Designation: msSunstra-505

Date NA&MLVRB first accepted this variety: 11/29/07

Date previous amendments accepted: \_\_\_\_\_

Date submitted: 11/26/08



# FSG 420LH

## **Breeding History:**

FSG 420LH is a synthetic variety with 18 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: potato leafhopper, bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode, and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

## **Area of Probable Adaptation:**

FSG 420LH is adapted to the North Central and East Central regions. FSG 420LH has been tested in Indiana, Pennsylvania and Iowa and is intended for use in the North Central and East Central regions.

## **Agronomic and Botanical Characteristics**

FSG 420LH is Moderately Fall Dormant similar to FD4 check. FSG 420LH is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 51% purple, 20% variegated, 19% yellow, 6% white and 4% cream. FSG 420LH has low multifoliolate leaf expression.

FSG 420LH has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and potato leafhopper; with resistance to stem nematode and pea aphid. Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla) and blue alfalfa aphid has not been tested.

## **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

## **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

## **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: FSG 420LH Date submitted November 26, 2008

Experimental designations: FG 44H368



## FG 44H372

### **Breeding History:**

FG 44H372 is a synthetic variety with 13 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: potato leafhopper, bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode, and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

FG 44H372 is adapted to the North Central and East Central regions. FG 44H372 has been tested in Indiana, Pennsylvania and Iowa and is intended for use in the North Central and East Central regions.

### **Agronomic & Botanical Characteristics:**

FG 44H372 is Moderately Fall Dormant similar to FD4 check. FG 44H372 is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 48% purple, 23% variegated, 17% yellow, 6% white and 6% cream. FG 44H372 has low multifoliolate leaf expression.

FG 44H372 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), pea aphid and potato leafhopper; with resistance to stem nematode. Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla) and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 44H372



## WL 353LH

### **Breeding History:**

WL 353LH is a synthetic variety with 14 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: potato leafhopper, bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode, and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

WL 353LH is adapted to the North Central and East Central regions. WL 363HQ has been tested in Indiana, Pennsylvania and Iowa and is intended for use in the North Central and East Central regions.

### **Agronomic & Botanical Characteristics:**

WL 353LH is Moderately Fall Dormant similar to FD4 check. WL 353LH is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 50% purple, 24% variegated, 10% white, 10% yellow and 6% cream. WL 353LH has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and potato leafhopper; with resistance to stem nematode. Reaction to spotted alfalfa aphid, pea aphid, root knot nematode (Northern M. hapla) and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: WL 353LH Date submitted November 26, 2008

Experimental designations: FG 45H353



# Phenomenal

## **Breeding History:**

Phenomenal is a synthetic variety with 12 parent clones. Parent clones were selected for forage yield, forage quality, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

## **Area of Probable Adaptation:**

Phenomenal is adapted to the North Central and East Central regions. Phenomenal has been tested in Indiana, Wisconsin and Iowa and is intended for use in the North Central and East Central regions.

## **Agronomic & Botanical Characteristics:**

Phenomenal is Moderately Fall Dormant similar to FD4 check. Phenomenal is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 90% purple, 6% variegated, 2% yellow, 2% cream with a trace of white. Phenomenal has high multifoliolate leaf expression.

Phenomenal has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and root knot nematode (Northern M. hapla); with resistance to pea aphid and moderate resistance to stem nematode. Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

## **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

## **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

## **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: Phenomenal Date submitted November 26, 2008

Experimental designations: FG 44M125





## Lightning IV

### Breeding History:

Lightning IV is a synthetic variety with 15 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### Area of Probable Adaptation:

Lightning IV is adapted to the North Central region. Lightning IV has been tested in Nebraska, Wisconsin and Iowa and is intended for use in the North Central region.

### Agronomic & Botanical Characteristics:

Lightning IV is Moderately Fall Dormant similar to FD4 check. Lightning IV is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 93% purple, 5% variegated and 2% yellow with a trace of white and cream. Lightning IV has high multifoliolate leaf expression.

Lightning IV has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1). Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla), pea aphid, stem nematode and blue alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced in the greenhouse in 2003 and in the field near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed will be marketed in 2009.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: Lightning IV Date submitted November 26, 2008

Experimental designations: FG 44M316



## FG 44M317

### **Breeding History:**

FG 44M317 is a synthetic variety with 17 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

FG 44M317 is adapted to the North Central and East Central regions. FG 44M317 has been tested in Indiana, Wisconsin and Iowa and is intended for use in the North Central and East Central regions.

### **Agronomic & Botanical Characteristics:**

FG 44M317 is Moderately Fall Dormant similar to FD5 check. FG 44M317 is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 92% purple, 5% variegated and 3% yellow with a trace of white and cream. FG 44M317 has high multifoliolate leaf expression.

FG 44M317 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and root knot nematode (Northern M. hapla); with resistance to stem nematode and pea aphid. Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 44M317



## DKA43-13

### **Breeding History:**

DKA43-13 is a synthetic variety with 15 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

DKA43-13 is adapted to the North Central region. DKA43-13 has been tested in Nebraska, Wisconsin and Iowa and is intended for use in the North Central region.

### **Agronomic & Botanical Characteristics:**

DKA43-13 is Moderately Fall Dormant similar to FD4 check. DKA43-13 is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 93% purple, 4% variegated, 2% yellow and 1% cream with a trace of white. DKA43-13 has high multifoliolate leaf expression.

DKA43-13 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); with resistance to stem nematode, root knot nematode (Northern M. hapla) and pea aphid. Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: DKA43-13 Date submitted November 26, 2008

Experimental designations: FG 44M318



## FG 45M116

### **Breeding History:**

FG 45M116 is a synthetic variety with 15 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

FG 45M116 is adapted to the North Central region. FG 45M116 has been tested in Nebraska, Wisconsin and Iowa and is intended for use in the North Central region.

### **Agronomic & Botanical Characteristics:**

FG 45M116 is Moderately Fall Dormant similar to FD4 check. FG 45M116 is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 93% purple, 6% variegated and 1% yellow with a trace of white and cream. FG 45M116 has high multifoliolate leaf expression.

FG 45M116 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); with resistance to stem nematode. Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla), pea aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 45M116



## FG 45M322

### **Breeding History:**

FG 45M322 is a synthetic variety with 15 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

FG 45M322 is adapted to the North Central and East Central regions. FG 45M322 has been tested in Nebraska, Wisconsin and New York and is intended for use in the North Central and East Central regions.

### **Agronomic & Botanical Characteristics:**

FG 45M322 is Moderately Fall Dormant similar to FD4 check. FG 45M322 is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 96% purple and 4% variegated with a trace of white, yellow and cream. FG 45M322 has high multifoliolate leaf expression.

FG 45M322 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); with resistance to stem nematode and pea aphid. Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla) and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 45M322



## FG 45M323

### **Breeding History:**

FG 45M323 is a synthetic variety with 15 parent clones. Parent clones were selected for forage yield, forage quality, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (Race 1 and Race 2). A combination of genotypic and phenotypic selection was used to identify the parent plants.

### **Area of Probable Adaptation:**

FG 45M323 is adapted to the North Central and East Central regions. FG 45M323 has been tested in Nebraska, Wisconsin and New York and is intended for use in the North Central and East Central regions.

### **Agronomic & Botanical Characteristics:**

FG 45M323 is Moderately Fall Dormant similar to FD4 check. FG 45M323 is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 75% purple, 23% variegated and 2% white with a trace of yellow and cream. FG 45M323 has high multifoliolate leaf expression.

FG 45M323 has high resistance to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); with resistance to stem nematode and pea aphid. Reaction to spotted alfalfa aphid, root knot nematode (Northern M. hapla) and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed (Syn1) was produced near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 45M323



## FG 55W277

### **Breeding History:**

FG 55W277 is a synthetic variety consisting of 115 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence, pest resistance and for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, stem nematode and Phytophthora root rot. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Idaho and Washington and is intended for use in the Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

### **Agronomic & Botanical Characteristics:**

Test variety is Moderately Dormant similar to FD5 check. Flower Color (Syn2) is 97% purple, 3% variegated and a trace of white, cream and yellow. It has moderate multifoliolate leaf expression.

Test variety has high resistance to *Anthracnose* (Race 1), bacterial wilt, *Fusarium* wilt, *Verticillium* wilt, *Phytophthora* root rot, pea aphid and stem nematode; with resistance to *Aphanomyces* root rot (Race 1) and root knot nematode (Northern *M. hapla*). Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 15, 2008

Experimental designations: FG 55W277



# WL 440HQ

## **Breeding History:**

WL 440HQ is a synthetic variety consisting of 135 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence, pest resistance and for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, stem nematode and Phytophthora root rot. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

## **Area of Probable Adaptation:**

This variety is adapted to the Moderately Winterhardy Intermountain, Winterhardy Intermountain and Southwest regions. This variety has been tested in Idaho and California, and is intended for use in the Moderately Winterhardy Intermountain, Winterhardy Intermountain and Southwest regions.

## **Agronomic & Botanical Characteristics:**

Test variety is Moderately Dormant similar to FD6 check. Flower Color (Syn2) is 93% purple, 5% variegated, 2% white with a trace of cream and yellow. It has moderate multifoliolate leaf expression.

Test variety has high resistance to *Anthraco*se (Race 1), bacterial wilt, *Fusarium* wilt, *Verticillium* wilt, *Phytophthora* root rot, pea aphid, stem nematode and root knot nematode (Northern *M. hapla*); with resistance to *Aphanomyces* root rot (Race 1). Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

## **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

## **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

## **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: WL 440HQ Date submitted November 26, 2008

Experimental designations: FG 55W278





## FG 65T067

### Breeding History:

FG 65T067 is a synthetic variety consisting of 110 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence, pest resistance and for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, stem nematode and Phytophthora root rot. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### Area of Probable Adaptation:

This variety is adapted to the Moderately Winterhardy Intermountain and Southwest regions. This variety has been tested in Idaho and California and is intended for use in the Moderately Winterhardy Intermountain and Southwest regions.

### Agronomic and Botanical Characteristics

Test variety is Non-Dormant similar to FD8 check. Flower Color (Syn1) is 96% purple, 4% variegated with a trace of cream, white and yellow.

Test variety has high resistance to *Anthraco*se (Race 1), *Phytophthora* root rot and stem nematode and resistance to *Fusarium* wilt, pea aphid and bacterial wilt. Reaction to *Verticillium* wilt, *Aphanomyces* root rot, spotted alfalfa aphid, blue alfalfa aphid and root knot nematode has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed will be marketed in 2009.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 65T067



## FG 85M282

### **Breeding History:**

FG 85M282 is a synthetic variety consisting of 125 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence and pest resistance. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest region.

### **Agronomic & Botanical Characteristics:**

Test variety is Very Non-Dormant similar to FD9 check. Flower Color (Syn2) is 100% purple with a trace of variegated, white, cream, and yellow. Test variety has high multifoliolate leaf expression.

Test variety has high resistance to *Anthraco*se (Race 1), *Fusarium wilt*, *Phytophthora* root rot, pea aphid and stem nematode; resistance to *Verticillium* wilt and low resistance to bacterial wilt. Reaction to *Aphanomyces* root rot, root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 85M282



## AmeriStand 901TSQ

### **Breeding History:**

AmeriStand 901TSQ is a synthetic variety consisting of 67 parent plants. Plants were selected based on forage yield, fall dormancy reaction and persistence. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest region.

### **Agronomic & Botanical Characteristics:**

Test variety is Very Non-Dormant similar to FD9 check. Flower Color (Syn2) is 100% purple with a trace of variegated, cream, white, and yellow.

Test variety has high resistance to *Fusarium* wilt, *Phytophthora* root rot, pea aphid and root knot nematode (Northern *M. hapla*); resistance to *Anthracnose* (Race 1), bacterial wilt, blue alfalfa aphid and stem nematode and moderate resistance to *Verticillium* wilt. Reaction to *Aphanomyces* root rot and spotted alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2002. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: AmeriStand 901TSQ Date submitted November 26, 2008

Experimental designations: FG 92T206



## FG 105T286

### Breeding History:

FG 105T286 is a synthetic variety consisting of 140 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence and pest resistance. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### Area of Probable Adaptation:

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest region.

### Agronomic & Botanical Characteristics:

Test variety is Very Non-Dormant similar to FD10 check. Flower Color (Syn2) is 100% purple with a trace of variegated, white, cream, and yellow.

Test variety has high resistance to *Phytophthora* root rot and pea aphid; resistance to *Fusarium* wilt and stem nematode; moderate resistance to bacterial wilt and low resistance to *Anthracnose* (Race 1). Reaction to *Verticillium* wilt, *Aphanomyces* root rot, root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed will be marketed in 2009.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 105T286



## FG 115T288

### **Breeding History:**

FG 115T288 is a synthetic variety consisting of 120 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence and pest resistance. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest region.

### **Agronomic & Botanical Characteristics:**

Test variety is Very Non-Dormant similar to FD11 check. Flower Color (Syn2) is 100% purple with a trace of variegated, white, cream and yellow.

Test variety has high resistance to *Fusarium* wilt, pea aphid and stem nematode; resistance to *Phytophthora* root rot; low resistance to *Anthraco*se (Race 1) and bacterial wilt. Reaction to *Verticillium* wilt, *Aphanomyces* root rot, root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2005. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 115T288



## FG 83T048

### **Breeding History:**

FG 83T048 is a synthetic variety consisting of 241 parent plants. Plants were selected based on forage yield, fall dormancy reaction and persistence. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest regions.

### **Agronomic & Botanical Characteristics:**

Test variety is Non-Dormant similar to FD8 check. Flower Color (Syn2) is 100% purple with a trace of variegated, cream, white, and yellow.

Test variety has high resistance to *Fusarium* wilt, *Phytophthora* root rot, pea aphid and root knot nematode (Northern *M. hapla*); resistance to spotted alfalfa aphid, *Verticillium* wilt and stem nematode and moderate resistance to *Anthracnose* (Race 1) and bacterial wilt. Reaction to *Aphanomyces* root rot and blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2003. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 83T048



## AmeriStand 802TQ

### Breeding History:

AmeriStand 802TQ is a synthetic variety consisting of 300 parent plants. Plants were selected based on forage yield, fall dormancy reaction and persistence. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### Area of Probable Adaptation:

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest region.

### Agronomic & Botanical Characteristics:

Test variety is Non-Dormant similar to FD8 check. Flower Color (Syn2) is 100% purple with a trace of variegated, cream, white, and yellow.

Test variety has high resistance to *Fusarium* wilt, *Phytophthora* root rot, pea aphid, root knot nematode (Northern *M. hapla*) and stem nematode; resistance to spotted alfalfa aphid and moderate resistance to *Anthraco*se (Race 1) and bacterial wilt. Reaction to *Aphanomyces* root rot, *Verticillium* wilt and blue alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2003. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed will be marketed in 2009.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: AmeriStand 802TQ Date submitted November 26, 2008

Experimental designations: FG 93T054



## FG 104T01

### **Breeding History:**

FG 104T01 is a synthetic variety consisting of 107 parent plants. Plants were selected based on forage yield, fall dormancy reaction and persistence. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and is intended for use in the Southwest regions.

### **Agronomic & Botanical Characteristics:**

Test variety is Very Non-Dormant similar to FD10 check. Flower Color (Syn2) is 100% purple with a trace of variegated, cream, white, and yellow.

Test variety has high resistance to *Fusarium* wilt and pea aphid; resistance to *Phytophthora* root rot and stem nematode and moderate resistance to *Anthraco*se (Race 1) and bacterial wilt. Reaction to *Aphanomyces* root rot, *Verticillium* wilt, blue alfalfa aphid, spotted alfalfa aphid and root knot nematode (Northern *M. hapla*) have not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted November 26, 2008

Experimental designations: FG 104T01





## MasterPiece II

### Breeding History:

MasterPiece II is a synthetic variety consisting of 120 parent plants. Plants were selected based on forage yield, fall dormancy reaction, persistence, pest resistance and for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, stem nematode and Phytophthora root rot. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all plants were derived trace to the following cultivars: Whitney (33%), Medalist (33%) and Masterpiece (34%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 2004. Seed was harvested in total on all parents and bulked to form breeder seed.

### Area of Probable Adaptation:

This variety is adapted to the Winterhardy Intermountain and Moderately Winterhardy Intermountain U.S. regions. This variety has been tested in Idaho and Washington and is intended for use in Winterhardy Intermountain and Moderately Winterhardy Intermountain U.S. regions.

### Agronomic & Botanical Characteristics:

Test variety is Moderately Fall Dormant, similar to FD5 check. Flower color (Syn2) is 70% purple, 2% cream, 9% yellow, 11 % variegated and 8% white. This variety has high multifoliolate leaf expression. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), pea aphid and stem nematode; with resistance to root knot nematode (M. hapla). Reaction to spotted alfalfa aphid and blue alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3 or Syn 4) classes will be recognized. Production of Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa, ID in 2004. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed will be marketed in 2008.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name MasterPiece II

Experimental Designation(s) FG 44W204

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 26, 2008



# LS 401

## **Breeding History:**

LS 401 is a 109 plant synthetic variety. Plants were selected near Evansville, WI in the spring of 2004. Phenotypic selection was based on high forage yield, high forage quality, good winter survival, and the absence of crown and root diseases. The selected plants were transplanted to an isolation field near Nampa, ID for breeder seed production.

Breeder seed (Syn 1) was produced in 2004 near Nampa, Idaho. Seed from all the plants was bulked to form the breeder seed of LS 401.

## **Area of Probable Adaptation:**

LS 401 is adapted to the North Central region of the United States. It will be used primarily for hay, haylage, greenchop and dehydration. It has been tested in Wisconsin. This variety is intended for use in the North Central region of the U.S.

## **Agronomic & Botanical Characteristics:**

LS 401 is a moderately fall dormant cultivar with a fall dormancy similar to the FD 4 check. Flower color in the Syn 2 generation is approximately 91% purple and 9% variegated with traces of white, yellow and cream.

This cultivar is highly resistant to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (race 1). Resistance to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, stem nematode and root-knot nematode has not been determined.

## **Procedures for Maintaining Seed Stock:**

Seed classes for this cultivar will be breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or Syn 3). Stand life will be limited to 1, 3, and 6 years on fields of breeder, foundation and certified seed classes, respectively. Breeder seed was produced in 2004 near Nampa, Idaho. Legacy Seeds will maintain sufficient seed stocks for the life of this variety.

## **Date Certified Seed First Offered for Sale:**

Seed may be marketed in 2009.

## **PVP Information:**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted 24 November 2008

Experimental designations: LS 401



# LS 501

## **Breeding History:**

LS 501 is a 105 plant synthetic cultivar. Plants were selected in the spring of 2005 near Evansville, WI. Phenotypic selection was based on high forage yield, high forage quality, good winter survival and the absence of root and crown diseases. The selected plants were transplanted to an isolation field near Nampa, ID for breeder seed production.

Breeder seed (Syn 1) was produced near Nampa, Idaho in 2005. Seed from all the plants was bulked to form the breeder seed of LS 501.

## **Area of Probable Adaptation:**

LS 501 is adapted to the North Central region of the United States. It will be used primarily for hay, haylage, greenchop and dehydration. It has been tested in Wisconsin. This variety is intended for use in the North Central region of the U.S.

## **Agronomic & Botanical Characteristics:**

This variety is a moderately fall dormant cultivar with a fall dormancy similar to the FD 4 check. Flower color in the Syn 2 generation is approximately 94% purple and 6% variegated with traces of yellow, white and cream.

This variety is highly resistant to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (Race 1). Resistance to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, stem nematode and root-knot nematode has not been determined.

## **Procedures for Maintaining Seed Stock:**

Seed classes for this variety will be breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or Syn 3). Stand life will be limited to 1, 3 and 6 years on fields of breeder, foundation and certified seed classes, respectively. Breeder seed was produced near Nampa, ID in 2005. Legacy Seeds will maintain sufficient seed stocks for the life of this variety.

## **Date Certified Seed First Offered for Sale:**

Seed may be marketed in 2009.

## **PVP Information:**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted 24 November 2008

Experimental designations: LS 501



## LS 502

### **Breeding History:**

LS 502 is 101 plant synthetic variety. Plants were selected in the spring of 2005 near Evansville, WI. Phenotypic selection was based on high forage yield, high forage quality, good winter survival and the absence of crown and root diseases. The selected plants were transplanted to an isolation field near Nampa, Idaho for breeder seed production.

Breeder seed (Syn 1) was produced in 2005 near Nampa, Idaho. Seed from all the plants was bulked to form the breeder seed of LS 502.

### **Area of Probable Adaptation:**

LS 502 is adapted to the North central region of the United States. It will be used primarily for hay, haylage, greenchop and dehydration. It has been tested in Wisconsin. This variety is intended for use in the north central region of the U.S.

### **Agronomic & Botanical Characteristics:**

LS 502 is a moderately fall dormant variety with a fall dormancy similar to the FD 4 check. Flower color in the Syn 2 generation is approximately 97% purple and 3% variegated with traces of yellow, cream and white.

This variety is highly resistant to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (Race 1). Resistance to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, stem nematode and root-knot nematode has not been determined.

### **Procedures for Maintaining Seed Stock:**

Seed classes for this variety will be breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or Syn 3). Stand life will be limited to 1, 3, and 6 years on fields of breeder, foundation and certified seed classes, respectively. Breeder seed was produced near Nampa, ID in 2005. Legacy Seeds will maintain sufficient seed stocks for the life of this variety.

### **Date Certified Seed First Offered for Sale:**

Seed may be marketed in 2009.

### **PVP Information:**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: \_\_\_\_\_ Date submitted 24 November 2008

Experimental designations: LS 502



## ForeGrazer V

### **Breeding History:**

ForeGrazer V is a 110 plant synthetic variety. Plants were selected near Evansville, WI in the spring of 2003. Phenotypic selection was based on high forage yield, good winter survival, and the absence of root and crown diseases. The selected plants were dug and transplanted to an isolation field in Idaho for breeder seed production.

Breeder seed (Syn 1) was produced in 2003 near Nampa, ID. The seed from all plants was bulked to form the breeder seed of ForeGrazer V.

### **Area of Probable Adaptation:**

ForeGrazer V is adapted to the North Central region of the United States. It will be used primarily for hay, haylage, greenchop and dehydration. It has been tested in Wisconsin. This variety is intended for use in the North Central and East Central regions of the U.S.

### **Agronomic & Botanical Characteristics:**

This variety is a dormant cultivar with a fall dormancy similar to the FD 3 check. Flower color in the Syn 2 generation is approximately 88% purple and 12% variegated with traces of white, yellow and cream.

This variety is highly resistant to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot and Aphanomyces root rot (race 1). It is resistant to Verticillium wilt and Aphanomyces root rot (race 2). Resistance to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, stem nematode and root-knot nematode has not been determined.

### **Procedures for Maintaining Seed Stock:**

Seed classes for this variety will be breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or Syn 3). Stand life will be limited to 1, 3 and 6 years on fields producing breeder, foundation and certified seed classes, respectively. Breeder seed was produced near Nampa, ID in 2003. Legacy Seeds, Inc. will maintain sufficient seed stocks for the life of this variety.

### **Date Certified Seed First Offered for Sale:**

Seed will be marketed in 2009.

### **PVP Information:**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: ForeGrazer V Date submitted 24 November 2008

Experimental designations: LS 302



## L 333HD

### **Breeding History:**

L 333HD is a 97 plant synthetic variety. Plants were selected near Evansville, WI in the spring of 2004. Phenotypic selection was based on high forage yield, high forage quality, winter survival, and the absence of root and crown diseases. The selected plants were dug and transplanted to an isolation field in Idaho for breeder seed production.

Breeder seed (Syn 1) was produced in 2004 near Nampa, ID. The seed from all plants was bulked to form the breeder seed of L 333HD.

### **Area of Probable Adaptation:**

L 333HD is adapted to the North Central region of the United States. It will be used primarily for hay, haylage, greenchop and dehydration. It has been tested in Wisconsin. This variety is intended for use in the North Central region of the U.S.

### **Agronomic & Botanical Characteristics:**

This variety is a dormant cultivar with a fall dormancy similar to the FD 3 check. Flower color in the Syn 2 generation is approximately 91% purple, 7% variegated, 1% white, and 1% yellow with a trace of cream.

This variety is highly resistant to Anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (race 1). Resistance to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, stem nematode and root-knot nematode has not been determined.

### **Procedures for Maintaining Seed Stock:**

Seed classes for this variety will be breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or Syn 3). Stand life will be limited to 1, 3 and 6 years on fields producing breeder, foundation and certified seed classes, respectively. Breeder seed was produced near Nampa, ID in 2004. Legacy Seeds, Inc. will maintain sufficient seed stocks for the life of this variety.

### **Date Certified Seed First Offered for Sale:**

Seed will be marketed in 2009.

### **PVP Information:**

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name: L 333HD Date submitted 24 November 2008

Experimental designations: LS 403



## 05W01PX

### **Breeding History:**

05W01PX is a synthetic cultivar with parent plants intercrossed under cage isolation in 2005 at Connell, WA. Parent plants trace to Pioneer experimentals with winterhardiness, forage yield, and persistence. Parent plants were selected phenotypically for one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Aphanomyces root rot Race 1 & 2, and Phytophthora root. Germplasm sources for 05W01PX are (16%) 54V46 and (84%) from Pioneer experimental lines.

Breeder seed (Syn 2) was harvested on 238 plants grown under cage isolation in Connell, WA in 2005 in total on all plants and bulked to form breeder seed.

### **Area of Probable Adaptation:**

05W01PX is adapted to North Central, East Central, and the Moderately Winterhardy Intermountain regions of the US and to Canada. This variety has been tested in Illinois, Wisconsin, Iowa, Washington and Canada, and is intended to use in the North Central, East Central, the Moderately Winterhardy Intermountain, Winterhardy Intermountain and the Great Plains regions of the US and Canada.

### **Agronomic & Botanical Characteristics:**

05W01PX is Moderately Dormant, similar to FD5 check. Flower color (Syn2) is 99% purple and 1% variegated with a trace of cream, white and yellow.

05W01PX is highly resistant to Anthracnose (Race 1), Aphanomyces root rot (Race 1), Verticillium wilt, stem nematode and Phytophthora root rot; with resistance to pea aphid, spotted alfalfa aphid, Aphanomyces root rot (Race 2) and root-knot nematode (*M. hapla*). Reactions to blue alfalfa aphid, bacterial wilt and Fusarium wilt, have not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder, two generations of foundations and three generations of certified seed classes. Breeder (Syn 2), foundation (Syn 3 or Syn 4) and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Breeder seed was produced in Connell, WA in 2005. Pioneer Hi-Bred International will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 5 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed may be marketed in 2009.

### **PVP Information:**

Application for Plant Variety Protection may be made and the certification option will not be requested. As a means of added varietal protection, information included with the Application for Review of Alfalfa Varieties for Certification may be provided to the PVP office.

Variety Name: 05W01PX Date submitted December 1, 2008

Experimental designations: W05PX84



## 55V12

### **Breeding History:**

55V12 is an eighteen clone synthetic cultivar crossed in a modified polycross design with seed bulked equally by clone to make up the Syn 1 population. Parent clones were selected phenotypically for resistance to one or more of the following: anthracnose race 1, bacterial wilt, Fusarium wilt, Verticillium wilt, Aphanomyces root rot, stem nematode, Phytophthora root, and spotted alfalfa aphid. Parent clones were also selected based on half-sib progeny performance for early spring vigor, forage growth, fall dormancy, and resistance to lodging. Germplasm sources for 55V12 are (39%) 54H11 and (61%) five Pioneer experimental lines.

Breeder seed (Syn 2) was harvested on 239 plants grown in cage isolation in Connell, WA in 2005 in total on all plants and bulked to form breeder seed.

### **Area of Probable Adaptation:**

55V12 is adapted to North Central, East Central, and the Moderately Winterhardy Intermountain regions of the US and to Canada. This variety has been tested in Illinois, Wisconsin, Iowa, Washington and Canada, and is intended to use in the North Central, East Central, the Moderately Winterhardy Intermountain, Winterhardy Intermountain and the Great Plains regions of the US and Canada.

### **Agronomic & Botanical Characteristics:**

55V12 is Moderately Dormant, similar to FD5 check. Flower color (Syn2) is 93% purple, 6% variegated and 1% white with a trace of cream and yellow.

55V12 is highly resistant to Anthracnose (Race 1), Aphanomyces root rot (Race 1), Verticillium wilt, Fusarium wilt, and Phytophthora root rot; with resistance to bacterial wilt, stem nematode, spotted alfalfa aphid, Aphanomyces root rot (Race 2) and root-knot nematode (*M. hapla*); with moderate resistance to pea aphid. Reaction to blue alfalfa aphid has not been tested.

### **Procedures for Maintaining Seed Stock:**

Seed increase is on a limited generation basis with one generation of breeder, two generations of foundations and three generations of certified seed classes. Breeder (Syn 2), foundation (Syn 3 or Syn 4) and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Breeder seed was first produced in Connell, WA in 2005. Pioneer Hi-Bred International will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 5 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed may be marketed in 2009.

### **PVP Information:**

Application for Plant Variety Protection may be made and the certification option will not be requested. As a means of added varietal protection, information included with the Application for Review of Alfalfa Varieties for Certification may be provided to the PVP office.

Variety Name: 55V12 Date submitted December 1, 2008

Experimental designations: 05W07CY, W05CY88





## 54Q32

### Breeding History:

54Q32 is a synthetic variety with 14 parent clones. The selection criteria used in the development of this variety include forage yield, forage quality, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (Race 1), Phytophthora root rot, and Aphanomyces root rot (Race 1). Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2000.

### Area of Probable Adaptation:

54Q32 is adapted to the North Central, East Central and Moderately Winterhardy Intermountain regions of the US. This variety has been tested in Wisconsin, Washington, Illinois and Iowa, and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain, Winterhardy Intermountain, Great Plains regions of the US and Canada.

### Agronomic & Botanical Characteristics:

54Q32 is Moderately Dormant, similar to FD4 check. Flower color (Syn2) is 76% purple, 23% variegated and 1% cream with a trace of yellow and white. 54Q32 has high resistance to anthracnose (Race 1), bacterial wilt, Phytophthora root rot, Verticillium wilt, Fusarium wilt; with resistance to spotted alfalfa aphid, pea aphid and root-knot nematode (*M. hapla*); moderate resistance to Aphanomyces root rot (Race 1); and low resistance to stem nematode,. Reaction to blue alfalfa aphid has not been tested.

### Procedures for Maintaining Seed Stock:

Seed increase is on a limited generation basis with one generation each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2 or Syn 3), and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Production of Syn 2 or Syn 3 foundation seed requires consent of the breeder. Breeder seed was produced in the field near Nampa Idaho in 2000. Pioneer Hi-Bred International will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

### Date Certified Seed First Offered for Sale:

Certified seed may be marketed in 2008.

### PVP Information:

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: 54Q32

Date submitted December 3, 2007

Experimental designations: 04FQEXP1

Variety Name 54Q32

Experimental Designation(s) 04FQEXP1

Date NA&MLVRB first accepted this variety January 15, 2008

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted December 1, 2008



## 55V48

### **Breeding History:**

55V48 selection criteria included forage yield, persistence, fall dormancy reaction and resistance to one or more of the following pests: bacterial wilt, *Fusarium* wilt, *Verticillium* wilt, *Aphanomyces* root rot, stem nematode and *Phytophthora* root.

### **Area of Probable Adaptation:**

55V48 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain regions of the United States and Ontario, Canada. 55V48 has been tested for yield in Iowa, Illinois, Washington, Wisconsin and Ontario Canada and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain regions of the United States and Canada.

### **Agronomic & Botanical Characteristics:**

55V48 is moderately dormant, with fall dormancy similar to FD-5 check. Flower color in the Syn 2 generation is 92% purple, 4% variegated, 1% yellow, 2% white and 1% cream.

55V48 is highly resistant to anthracnose (Race 1), bacterial wilt, *Phytophthora* root rot, *Aphanomyces* root rot (Race 1), *Fusarium* wilt, and pea aphid; resistant to *Aphanomyces* root rot (Race 2), *Verticillium* wilt, spotted alfalfa aphid, Northern root-knot nematode, and stem nematode. 55V48 has not been tested for blue alfalfa aphid resistance.

### **Procedures for Maintaining Seed Stock:**

Breeder seed (Syn 2) was produced from 255 random plants started as seedlings in the greenhouse, and transplanted to cage in the Pacific Northwest during the summer of 2002. Seed classes will be breeder (Syn 2), foundation (Syn 3 or 4), and certified (Syn 3, 4, or 5). Foundation seed may be produced from breeder or foundation. The second-generation foundation seed may be produced at the discretion of Pioneer Hi-Bred International, Inc. Limitations of age of stand will be one, three and five years, respectively, for breeder, foundation and certified seed. Pioneer Hi-Bred International will maintain breeder seed for the life of the cultivar.

### **Date Certified Seed First Offered for Sale:**

Seed will be marketed in the spring of 2008.

### **PVP Information:**

Application for Plant Variety Protection may be made and the certification option will not be requested. As a means of added varietal protection, information included with the Application for Review of Alfalfa Varieties for Certification may be provided to the PVP office.

Variety name: 55V48

Date submitted: December 4, 2006

Experimental designation: 02W03PX2, W01PM97



## SALTANA

### **Breeding History:**

This synthetic variety was developed using the outdoor cage crossing method with both honey bees and leaf cutting bees. The selection criteria used in the development of this variety include yield, tolerance to salt stress measured by forage yield, healthy roots, and resistance to spotted alfalfa aphid, blue alfalfa aphid and Southern root knot nematode (*M. incognita*).

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. This variety has been tested in California and Arizona and is intended for use in the Southwest regions.

### **Agronomic & Botanical Characteristics:**

This variety is Very Non-Dormant, similar to FD 9 check. Flower Color (Syn-2) is 98% purple and 2% variegated.

SALTANA has high resistance to Fusarium wilt, bacterial wilt, spotted alfalfa aphid, blue alfalfa aphid and Southern root knot nematode (*M. incognita*); with resistance to Phytophthora root rot and pea aphid. Reaction to stem nematode, anthracnose (Race 1), Verticillium wilt and Aphanomyces root rot (Race 1) has not been tested.

### **Procedures for Maintaining Seed Stock:**

Breeder seed was produced in the field near Mendota, California in 2003. Imperial Valley Milling Company will maintain seedstocks of this variety. Under certification, the class of seed will be breeder (Syn2), foundation (Syn 3 or Syn 4), and certified (Syn 3 or Syn 4 or Syn 5). Stands of foundation and certified seed fields are limited to 4 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: SALTANA Date submitted November 1, 2008

Experimental designations: SW 9332 and SW 9433



## SW 6330

### **Breeding History:**

This synthetic variety was developed using the outdoor cage crossing method with both honey bees and leaf cutting bees. The selection criteria used in the development of this variety include forage yield, and resistance to pea aphid, spotted alfalfa aphid, Phytophthora root rot and Southern root knot nematode (*M. incognita*).

### **Area of Probable Adaptation:**

SW 6330 is adapted to the Southwest and Great Plains regions. This variety has been tested in California and New Mexico and is intended for use in the Southwest and Great Plains regions.

### **Agronomic & Botanical Characteristics:**

This variety is Moderately Dormant, similar to FD 6 check. Flower Color (Syn2) is 97% purple and 3% variegated. SW 6330 has high resistance to pea aphid; with resistance to spotted alfalfa aphid, anthracnose (Race 1), Phytophthora root rot, and Southern root knot nematode (*M. incognita*); moderate resistance to stem nematode and blue alfalfa aphid; low resistance to Verticillium wilt. Reaction to Fusarium wilt, bacterial wilt and Aphanomyces root rot (Race 1) has not been tested. .

### **Procedures for Maintaining Seed Stock:**

Breeder seed was produced in the field near Mendota, California in 2003. S & W Seed Company will maintain seedstocks of this variety. Under certification, the classes of seed will be breeder (Syn 2), foundation (Syn 3 or Syn 4), and certified (Syn 3 or Syn 4 or Syn 5). Stands of foundation and certified seed fields are limited to 4 and 6 years, respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be marketed in 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. The information in this application may not be forwarded to the PVP office.

Variety Name: SW 6330 Date submitted November 1, 2008

Experimental designations: SW 6330



## Catalina

### **Breeding History:**

The selection criteria used in the development of this variety include forage yield potential, persistence, and resistance to Southern root knot nematode, spotted alfalfa aphid, pea aphid and Phytophthora root rot.

### **Area of Probable Adaptation:**

This variety is adapted to the Southwest region. Catalina has been tested in the San Joaquin Valley, Sacramento Valley and the Imperial Valley of California and in Arizona, and is intended for use in the Southwest region.

### **Agronomic & Botanical Characteristics:**

Catalina is non-dormant in the fall, similar to FD 9 check. Flower color (Syn 2) is 98% purple and 2% variegated.

This variety has high resistance to root knot nematode (southern), spotted alfalfa aphid and Fusarium Wilt; Reaction to anthracnose (race 1), Verticillium wilt, stem nematode and Aphanomyces root rot (race 1) have not been tested.

### **Procedures for Maintaining Seed Stock:**

Breeder seed was produced in 2002. Imperial Valley Milling Company will maintain seed stocks of this variety. Under certification, the classes of seed will be Breeder, Foundation and Certified. Foundation seed will be produced from Breeder seed and/or Foundation seed. Foundation or Breeder seed will be used to produce Certified seed. Length of stand life allowed for Foundation and Certified seed is four and six years respectively.

### **Date Certified Seed First Offered for Sale:**

Certified seed will be available for sale in the Fall of 2009.

### **PVP Information:**

No decision has been made concerning Plant Variety Protection Act. This information may not be sent to the P.V.P. office.

Variety name: Catalina Date submitted: November 1, 2008

Experimental designations: SW 9217.



## Saltine

### Breeding History:

Saltine is a synthetic variety with 300 parent clones. Parent clones trace to one population selected for increased germination and forage yield under saltine (NaCl) stress; and resistance to Phytophthora root rot, anthracnose (race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, blue alfalfa aphid, spotted alfalfa aphid, pea aphid, stem nematode, and southern root-knot nematode.

Phenotypic recurrent selection was used. Final selections were made from salinity trials in California and Arizona.

Approximate germplasm source contributions are:

M. Falcata (0%), Ladak (0%), M. varia (0%), Turkistan (0%), Flemish (0%), Chilean (0%), Peruvian (0%), Indian (50%), African (0%), Arabian (0%) and unknown (50%). Breeder seed (Syn 1) was produced under field isolation near Kingsburg, CA in 1997.

### Area of Probable Adaptation:

Area of intended use is Central and Southern California, and the lower elevations of Arizona and New Mexico. Area of adaptation is Southwest Regions of U.S. Saltine has been tested for yield in California.

### Agronomic & Botanical Characteristics:

Saltine is a fall dormancy 9, similar to the FD of CUF 101. Flower color is approximately 99% purple, and a trape of variegated cream, yellow, and white.

Saltine has high resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, blue alfalfa aphid, spotted alfalfa aphid; and southern root-knot nematode; and resistance to anthracnose (race 1) and pea aphid; and moderate resistance to Verticillium wilt, and stem nematode. Aphanomyces root rot resistance was not evaluated.

### Procedures for Maintaining Seed Stock:

Seed increase of Saltine is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and certified (Syn.3 or Syn.4) classes will be recognized. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively. Certified seed may be produced from either breeder (Syn 1 or Syn 2), foundation (Syn 2 or Syn 3), or certified classes (Syn 3 or Syn 4). A 1, 3, and 5-year stand life is permitted on fields producing breeder, foundation, and certified classes respectively. Breeder and foundation seed production outside the area of adaptation, is limited to single season production (non-overwintering). Breeder seed was produced by ABI Alfalfa in 1997. Sufficient breeder and foundation seed stock of the variety will be maintained by the variety owner, Winsor Grain Co. for the projected life of the variety.

### Date Certified Seed First Offered for Sale:

Certified seed will be available in 2004.

### PVP Information

Plant Variety Protection will not be applied for. This information can be forwarded to the PVP office.

Variety Name Saltine

Experimental Designation(s) ZS 9898

Date NA&MLVRB first accepted this variety November 19, 2004

Date(s) previous amendments were accepted \_\_\_\_\_

Date amendment submitted November 25, 2008



## RC9806 Red Clover

### **Breeding History:**

RC9806 red clover was developed using phenotypic recurrent selection. In April 1996, a 3-replicate trial of 12 entries was seeded at West Salem, WI. Plots were harvested in 1996 and 1997. Following the winter of 1997-98, plot stands were greatly reduced. Remaining plants in plots of 5 promising synthetics, plus those in plots of the check varieties Cardinal and Marathon were allowed to flower and interpollinate. The seed from these lines was bulked harvested in August 1998. The resulting population was screened in the greenhouse at Battle Ground, IN 3 cycles for resistance to one or more of the following diseases: northern and southern anthracnose, powdery mildew, and *Mycoleptodiscus* root rot. Approximately 300 surviving plants were kept each cycle. In April 2001, approximately 300 screened plants from the 3<sup>rd</sup> cycle were sent to Touchet, WA for breeder seed (syn-1) production in 2002, sufficient for the life of the variety.

### **Area of Probable Adaptation:**

RC9806 is adapted to the north central and east central United States, and is intended for use in those areas. It has been tested in Indiana, Illinois, Kentucky, Ohio, Pennsylvania, Tennessee, and Wisconsin.

### **Agronomic & Botanical Characteristics:**

RC9806 is a diploid medium red clover. Its flower color is 15% red, 37% dark pink, 38% medium pink, 9% light pink, and 1% white. Approximately 80% of the plants exhibit leaf marks, and 87% have hairs on the stems. RC9806 is highly resistant to powdery mildew, resistant to southern anthracnose, and moderately resistant to northern anthracnose. Approximately 54% of the plants bloom in the seeding year. RC9806 reaches 50% bloom approximately 3 days later than Kenland in the spring growth of the first year after seeding.

### **Procedures for Maintaining Seed Stock:**

Seed increase of RC9806 is limited to one generation of breeder (Syn-1), two generations of foundation (Syn-2 or 3), and three generations of certified (Syn-2, 3, or 4) classes. Breeder seed was produced in 2002 sufficient for the life of the variety, and is maintained in cold storage by FFR Cooperative. Length of stand allowed is 2 years and 3 years each for the foundation and certified classes, respectively. Production of foundation seed is limited to the northwest United States.

### **Date Certified Seed First Offered for Sale:**

Certified seed will first be offered for sale in 2010.

### **PVP Information:**

Application will not be made for Plant Variety Protection. Information in this application may be forwarded to the PVP office.

Variety name:

Date submitted: November 26, 2008

Experimental designation: RC9806

