A REPORT OF THE

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES

VARIETY REVIEW BOARD

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES
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APR 2012

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES
VARIETY REVIEW BOARD

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES
(JANUARY 2012)

The Association of Official Seed Certifying Agencies (AOSCA) National Alfalfa and Miscellaneous Legumes Variety Review Board reviewed the following varieties on January 10, 2012, 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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Respectfully submitted,

Jerry Robinson, Chair
National Alfalfa and Miscellaneous Legumes Variety Review Board

2012 AOSCA ALFALFA & MISC LEGUMES NVRB

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		A – Name Change		
		B – Description		
		C – Other		

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

CW 044019 (Exp)

Origin and Breeding History

CW 044019 is a synthetic variety with 55parent plants selected for high forage dry matter yield, high forage milk per acre using Milk 2000, and/or high forage NDFD. Parent plants were selected from a three year old Wisconsin selection nursery, crossed in the greenhouse, and bulk harvested as Synthetic generation 1. Nursery source plants composed of various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage dry matter yield, high NDFD (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 leaf spot. Parentage of CW 044019 traces to the following germplasm sources: Abound (2%), Ascend (2%), Cornerstone (2%), Foremost II (2%), Power 4.2 (2%), TMF 421 (2%), Trialfalon (2%), WinterGold (2%), and CW 04-049 (84%). Breeder seed was produced under cage isolation near Woodland, California in 2004. Seed was bulk harvested from all parent plants as Synthetic generation 2.

Areas of Probable Adaptation

CW 044019 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. CW 044019 has been tested in Idaho, Iowa, Minnesota, Ohio, Pennsylvania, and Wisconsin

Agronomic and Botanical Characteristics

CW 044019 is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. CW 044019 is extremely Winterhardy, similar to WS class 1 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% cream and a trace variegated. CW 044019 has moderate multifoliolate leaf expression rating similar to High MF check variety.

CW 044019 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, cow pea aphid, northern root knot nematode, and stem nematode; with moderate resistance to spotted alfalfa aphid.

Procedures for Maintaining Seed Stock

Seed increase of CW 044019 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.2 or Syn.3), foundation (Syn.3 or Syn.4), and certified (Syn.4 or Syn.5) classes will be recognized. Production of Syn.3 breeder or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 044019 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Apr 02, 2012

CW 055005 (Exp)

Origin and Breeding History

CW 055005 is a synthetic variety with 11 parent plants selected for high forage dry matter yield, high forage milk per acre using Milk 2000, and/or high forage NDFD. Parent plants were selected from a three year old Wisconsin selection nursery, crossed in the greenhouse, and bulk harvested as Synthetic generation 1. Nursery source plants composed of various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage dry matter yield, high NDFD (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 leaf spot. Parentage of CW 055005 traces to the following germplasm sources: Sprint (9%) and CW D5-C05 (91%). Breeder seed was produced under cage isolation near Woodland, California in 2005. Seed was bulk harvested from all parent plants as Synthetic generation 2.

Areas of Probable Adaptation

CW 055005 is adapted to the North Central, East Central, and Winterhardy Intermountain 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. CW 055005 has been tested in Idaho, Iowa, Michigan, Minnesota, Pennsylvania, and Wisconsin

Agronomic and Botanical Characteristics

CW 055005 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 96% purple, 4% variegated, and a trace cream. CW 055005 has low multifoliolate leaf expression rating similar to Low MF check variety. CW 055005 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, cow pea aphid, northern root knot nematode, and stem nematode; with moderate resistance to spotted alfalfa aphid.

Procedures for Maintaining Seed Stock

Seed increase of CW 055005 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.2 or Syn.3), foundation (Syn.3 or Syn.4), and certified (Syn.4 or Syn.5) classes will be recognized. Production of Syn.3 breeder or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 055005 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Apr 02, 2012

CW 060097 (Exp)

Origin and Breeding History

CW 060097 is a synthetic variety with 80 parent plants that were selected for aphid resistance, drought tolerance, frost tolerance, leaf disease resistance, persistence and agronomic characteristics from yield trials and pastures at four locations in Argentina. Parent plants were selected from various populations that 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 060097 traces to A1086 (20%), DK 191 (19%), and miscellaneous Cal/West Seeds breeding populations (61%). Breeder seed (Syn.1) was produced under cage isolation near Anguil, Argentina in 2006. Seed was bulk harvested from all parent plants.

Areas of Probable Adaptation

CW 060097 is adapted to the Moderately Winterhardy Intermountain and Southwest areas of the US and to Argentina and is intended for use in the Southwest areas of the US and to Argentina. CW 060097 has been tested in California and Argentina

Agronomic and Botanical Characteristics

CW 060097 is a very nondormant variety with fall dormancy similar to FD class 10 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple, and a trace of variegated, white, cream, and yellow.

CW 060097 has high resistance to pea aphid, spotted alfalfa aphid, and northern root knot nematode; resistance to anthracnose (race 1), Fusarium wilt, blue alfalfa aphid, and stem nematode; moderate resistance to Verticillium wilt and cow pea aphid; and low resistance to bacterial wilt and Phytophthora root rot. Reaction to Aphanomyces root rot (race 1) has not been tested.

Procedures for Maintaining Seed Stock

Seed increase of CW 060097 is on a limited generation basis with two generations of breeder, and three generations of the foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Anguil, Argentina in 2006. 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 060097 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Jan 10, 2012

CW 066103 (Exp)

Origin and Breeding History

CW 066103 is a synthetic variety with 289 parent plants that were selected for aphid resistance, drought tolerance, frost tolerance, leaf disease resistance, persistence and agronomic characteristics from yield trials at four locations in Argentina. Parent plants were selected from various populations that 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 066103 traces to GrazeKing (17%), P.5683 (9%), Archer (7%), DK 166 (6%), Perla (2%), Tango (1%), P.5681 (1%), and miscellaneous Cal/West Seeds breeding populations (57%). Breeder seed (Syn.1) was produced under cage isolation near Anguil, Argentina in 2006. Seed was bulk harvested from all parent plants.

Areas of Probable Adaptation

CW 066103 is adapted to the Moderately Winterhardy Intermountain and Southwest areas of the US and to Argentina and is intended for use in the Moderately Winterhardy Intermountain and Southwest areas of the US and in Argentina. CW 066103 has been tested in California and Argentina

Agronomic and Botanical Characteristics

CW 066103 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 a trace of variegated, white, cream, and yellow.

CW 066103 has high resistance to spotted alfalfa aphid; resistance to anthracnose (race 1), Fusarium wilt, Verticillium wilt, Phytophthora root rot, pea aphid, and blue alfalfa aphid; and moderate resistance to bacterial wilt, stem nematode, and cow pea aphid. Reaction to Aphanomyces root rot (race 1) and root knot nematode has not been tested.

Procedures for Maintaining Seed Stock

Seed increase of CW 066103 is on a limited generation basis with two generations of breeder, and three generations of the foundation, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Anguil, Argentina in 2006. 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 066103 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Jan 10, 2012

CW 084034 (Exp)

Origin and Breeding History

CW 084034 is a synthetic variety with 225 parent plants. 155 of the 225 parent plants were selected sequentially for germination, seedling growth, and mature plant regrowth after repeated irrigation with 100 mM NaCl solution in the greenhouse. 70 of the 225 parent plants were selected sequentially for germination and seedling growth in the greenhouse on field soil with >8 EC obtained from Wyoming, Nevada, Oregon, Colorado, and/or North Dakota. Parent plants were crossed in the greenhouse, and bulk harvested as Synthetic generation 1. 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 NDFD (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 leaf spot. Parentage of CW 084034 traces to the following germplasm sources: SolarGold (24%), CW 054038 (33%), CW 064027 (35%), CW 073038 (2%), CW 073011 (2%), CW 074016 (2%), and CW 074017 (2%). Breeder seed was produced under cage isolation near Woodland, California in 2008. Seed was bulk harvested from all parent plants as Synthetic generation 2.

Areas of Probable Adaptation

CW 084034 is adapted to the North Central area 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. CW 084034 has been tested in Iowa, Minnesota, and Wisconsin

Agronomic and Botanical Characteristics

CW 084034 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, 1% variegated, 1% white, trace cream, and a trace yellow. CW 084034 has moderate multifoliolate leaf expression rating similar to Moderate MF check variety. CW 084034 has forage production under salt stress similar to the tolerant check variety. Germination of CW 084034 under salt stress is similar to the tolerant check variety.

CW 084034 has high resistance to anthracnose (race 1), Aphanomyces root rot (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Verticillium wilt, blue alfalfa aphid, and pea aphid; with resistance to, cow pea aphid and stem nematode; with moderate resistance to spotted alfalfa aphid. Reaction to root knot nematode has not been tested.

Procedures for Maintaining Seed Stock

Seed increase of CW 084034 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.2 or Syn.3), foundation (Syn.3 or Syn.4), and certified (Syn.4 or Syn.5) classes will be recognized. Production of Syn.3 breeder or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2008. 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 084034 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Apr 02, 2012

A-1086
(Amended- Salt Tolerance of Germinating Alfalfa Seeds, Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
A-1086 is a synthetic variety with 180 parent plants that were selected for resistance to stem nematode, anthracnose (race 1), and Phytophthora root rot. Parent plants were selected from crosses between selections from four-year old California yield trials and selections from seed yield nurseries. Source populations from yield trials and nurseries 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, and blue alfalfa aphid. Parentage of A-1086 traces to Robusta, CW 907, ACA 900, DK 191, Grasis, Grasis II, 5929, DK 192, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.varia (2%), Turkistan (8%), Flemish (1%), Chilean (6%), Peruvian (3%), Indian (26%), African (54%).

Areas of Probable Adaptation
A-1086 is adapted to and intended for use in the Southwest area of the U.S., Mexico, and Argentina. CW 99052 has been tested in California, Mexico, and Argentina.

Agronomic and Botanical Characteristics
A-1086 is a very nondormant variety with fall dormancy similar to FD class 10 check varieties. Flower color observed in the Syn.2 generation is approximately 100% purple with a trace of variegated, white, cream, and yellow. Germination of A-1086 under salt stress is similar to the tolerant check variety.

A-1086 has high resistance to Fusarium wilt, Phytophthora root rot, stem nematode, southern root knot nematode (*Meloidogyne incognita*), northern root knot nematode (*Meloidogyne hapla*), and spotted alfalfa aphid, with resistance to anthracnose (race 1), Verticillium wilt, pea aphid, and blue alfalfa aphid, and moderate resistance to bacterial wilt. Reaction to Aphanomyces root rot (race 1) has not been adequately tested.

Procedures for Maintaining Seed Stock
Seed increase of A-1086 is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of A-1086 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 A-1086

Experimental Designation(s) CW 99052

Date NA&MLVRB first accepted this variety January 2003

Date(s) previous amendments were accepted January 2007, January 2010

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Apr 02, 2012

CW 1010
(Amended - Salt Tolerance of Germinating Alfalfa Seeds)

Origin and Breeding History
CW 1010 is a synthetic variety with 200 parent plants that were selected sequentially for resistance to Phytophthora root rot, Anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from 4-year old California yield trials from various populations that were developed by a combination of phenotypic recurrent selection and strain crossing with selection for one or more of the following pests: Fusarium wilt, Verticillium wilt, anthracnose (race 1), Phytophthora root rot, blue alfalfa aphid, and spotted alfalfa aphid. Parentage of CW 1010 traces to the following germplasm sources: Mecca, Grasis, ACA 900, Super Supreme, CW 907, DK 191, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: Turkistan (7%), Chilean (8%), Indian (25%), African (55%), and Unknown (5%).

Areas of Probable Adaptation
CW 1010 is adapted to the Southwestern area of the U.S., Mexico, and Argentina and is intended for use in the Southwestern U.S., Mexico, and Argentina. CW 1010 has been tested in California, Arizona, Mexico, and Argentina.

Agronomic and Botanical Characteristics
CW 1010 is a very nondormant variety with fall dormancy similar to the FD 10 check UC 1887. Flower color observed in the Syn.2 generation is 99% purple, and 1% variegated, with a trace of cream, white, and yellow. Germination of CW 1010 under salt stress is similar to the tolerant check variety.

CW 1010 has high resistance to Fusarium wilt, Phytophthora root rot, stem nematode, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, and northern root knot nematode with resistance to anthracnose (race 1), southern root knot nematode and Verticillium wilt, and moderate resistance to bacterial wilt. Reaction to Aphanomyces root rot (race 1) has not been adequately tested.

Procedures for Maintaining Seed Stock
Seed increase of CW 1010 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 Woodland, California in 1998. 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of CW 1010 will be available in 2004.

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

Variety Name	CW 1010
Experimental Designation(s)	CW 89064
Date NA&MLVRB first accepted this variety	January 2005
Date(s) previous amendments were accepted	
Date amendment submitted	November 30, 2011
Date recommended by the NVRB:	Apr 02, 2012

PERFORMER
(Amended - Name Change to PERFORMER, Stem Nematode Resistance)

Origin and Breeding History
PERFORMER is a synthetic variety with 52 parent plants selected for high forage dry matter yield, high forage milk per acre using Milk 2000, and/or high forage NDFD. Parent plants were selected from a three year old Wisconsin selection nursery, crossed in the greenhouse, and bulk harvested as Synthetic generation 1. Nursery source plants composed of various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage dry matter yield, high NDFD (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 leaf spot. Parentage of PERFORMER traces to the following germplasm sources: Abound (2%), Alliant (2%), Cornerstone (2%), Double Eagle (2%), Foremost II (2%), FQ 315 (2%), Trialfalon (2%), WinterGold (8%), and CW 04-048 (78%). Breeder seed was produced under cage isolation near Woodland, California in 2004. Seed was bulk harvested from all parent plants as Synthetic generation 2.

Areas of Probable Adaptation
PERFORMER 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. PERFORMER has been tested in Iowa, Minnesota, Ohio, Pennsylvania, and Wisconsin

Agronomic and Botanical Characteristics
PERFORMER is a moderately dormant variety with fall dormancy similar to FD class 4 check varieties. PERFORMER is very Winterhardy, similar to WS class 2 check varieties. Flower color observed in the Syn.2 generation is approximately 99% purple and 1% variegated. PERFORMER has moderate multifoliolate leaf expression rating similar to Moderate MF check variety.

PERFORMER 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 stem nematode; with moderate resistance to blue alfalfa aphid and cow pea aphid; Reaction to the spotted alfalfa aphid and root knot nematode has not been tested.

Procedures for Maintaining Seed Stock
Seed increase of PERFORMER is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.2 or Syn.3), foundation (Syn.3 or Syn.4), and certified (Syn.4 or Syn.5) classes will be recognized. Production of Syn.3 breeder or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of PERFORMER will be available in 2011.

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

Variety Name PERFORMER

Experimental Designation(s) CW 044018

Date NA&MLVRB first accepted this variety January 2011

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Jan 10, 2012

PGI 709
(Amended - Salt Tolerance of Germinating Alfalfa Seeds)

Origin and 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%).

Areas 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 and 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. Germination of PGI 709 under salt stress is similar to the tolerant check variety.

PGI 709 has high resistance to Anthracnose, 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 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.

Certified Seed Availability and Publication of Certified Seed Production
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

Experimental Designation(s) CW 047075

Date NA&MLVRB first accepted this variety January 2009

Date(s) previous amendments were accepted January 2010

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 02, 2012

SolarGold
(Amended - Name change to SolarGold
Add Moderate Resistance to Aphanomyces (Race 2)
Add Moderate Resistance to Stem Nematode)

Origin and Breeding History
SolarGold is a synthetic variety with 16 parent plants selected for high forage dry matter yield, high forage milk per acre using Milk 2000, and/or high forage NDFD. Parent plants were selected from a three year old Wisconsin selection nursery, crossed in the greenhouse, and bulk harvested as Synthetic generation 1. Nursery source plants composed of various populations that were developed by phenotypic recurrent selection for winter hardiness, high forage dry matter yield, high NDFD (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 leaf spot. Parentage of SolarGold traces to the following germplasm sources: Chesapeake (6%), SpringGold (6%), and CW D4-C06 (88%). Breeder seed was produced under cage isolation near Woodland, California in 2006. Seed was bulk harvested from all parent plants as Synthetic generation 2.

Areas of Probable Adaptation
SolarGold is adapted to the North Central, East Central, and Winterhardy Intermountain 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. SolarGold has been tested in Idaho, Iowa, Minnesota, Ohio, Pennsylvania, and Wisconsin.

Agronomic and Botanical Characteristics
SolarGold 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, 4% variegated, and 1% cream; with a trace of white. SolarGold has high multifoliolate leaf expression rating similar to High MF check variety.

SolarGold 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, cow pea aphid, and root knot nematode; with moderate resistance to spotted alfalfa aphid, Aphanomyces root rot (race 2), and stem nematode.

Procedures for Maintaining Seed Stock
Seed increase of SolarGold is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn.2 or Syn.3), foundation (Syn.3 or Syn.4), and certified (Syn.4 or Syn.5) classes will be recognized. Production of Syn.3 breeder or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2006. 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of SolarGold will be available in 2011.

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

Variety Name SolarGold

Experimental Designation(s) CW 064004

Date NA&MLVRB first accepted this variety January 2011

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Jan 10, 2012

CW 09084 (Exp)
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
CW 09084 is a synthetic variety with 150 parent plants which were selected for spotted alfalfa aphid resistance from source populations selected for drought tolerance, crown rot resistance and persistence in Mexico. Source populations 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, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, and blue alfalfa aphid. Parentage of CW 09084 traces to miscellaneous Cal/West Seeds breeding populations (100%). Approximate germplasm source contributions are as follows: African (100%).

Areas of Probable Adaptation
CW 09084 is adapted to the Southwest area of the U.S. and Mexico and is intended for use in Mexico. CW 09084 has been tested in California and Mexico.

Agronomic and Botanical Characteristics
CW 09084 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.

CW 09084 has high resistance to Fusarium wilt, pea aphid, and stem nematode, with resistance to Phytophthora root rot and spotted alfalfa aphid, moderate resistance to blue alfalfa aphid, and low resistance to anthracnose (race 1),. Reaction to bacterial wilt, Verticillium wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

Procedures for Maintaining Seed Stock
Seed increase of CW 09084 is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of CW 09084 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 _____

Experimental Designation(s) CW 09084

Date NA&MLVRB first accepted this variety January 2004

Date(s) previous amendments were accepted _____

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

PGI 1007 BA
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
PGI 1007 BA is a synthetic variety with 400 parent plants which were selected for cow pea aphid resistance. Parent plants were derived from populations selected out of 4 year old California yield trials that were further selected 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 1007 BA traces to ACA 900, Robusta, Mecca, DK 191, Grassis II, 5939, Topacio, WL 711, and misce1laneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M. varia (2%), Turkistan (8%), Flemish (1%), Chilean (6%), Peruvian (3%), Indian (24%), and African (56%).

Areas of Probable Adaptation
PGI 1007 BA is adapted to the Southwestern area of the U.S. and Mexico. It is intended for use in the Southwestern U.S., Mexico, and Argentina. PGI 1007 BA has been tested in California and Mexico.

Agronomic and Botanical Characteristics
PGI 1007 BA is a very nondormant variety with fall dormancy similar to the FD 10 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 1007 BA has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root knot nematode, southern root knot nematode, and cowpea aphid, with resistance to stem nematode. The reaction to anthracnose (race 1), bacterial wilt, Verticillium wilt, and Aphanomyces root rot (race 1) has not been adequately tested.

Procedures for Maintaining Seed Stock
Seed increase of PGI 1007 BA is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed (Syn.1) 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of PGI 1007 BA 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 PGI 1007 BA

Experimental Designation(s) CW 20097

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

PGI 908-S
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
PGI 908-S is a synthetic variety with 177 parent plants which were selected for survival under salt stress at the seedling stage and for yield under salt stress at the mature plant stage. 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, stem nematode, and cowpea aphid. Parentage of PGI 908-S traces to DK 194, SPS 9000, CW 907, Milenia, and various Cal/West Seeds miscellaneous breeding populations. Approximate germplasm source contributions are as follows: M.varia (2%), Turkistan (6%), Flemish (3%), Chilean (11%), Peruvian (7%), Indian (25%), African (41%), and Unknown (5%).

Areas of Probable Adaptation
PGI 908-S is adapted to the Southwestern area of the U.S. It is intended for use in the Southwestern U.S. PGI 908-S has been tested in California and Arizona.

Agronomic and Botanical Characteristics
PGI 908-S is a very nondormant variety with fall dormancy similar to the FD9 check variety. Flower color observed in the Syn.2 generation is 99% purple and 1% cream, with a trace of variegated, white, and yellow.

PGI 908-S has high resistance to Anthracnose, Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root knot nematode, and southern root knot nematode, with resistance to bacterial wilt, Verticillium wilt, cowpea aphid, and stem nematode. The reaction to Aphanomyces root rot (race 1) has not been adequately tested.

PGI 908-S has salt tolerance of germinating alfalfa seeds and forage production under salt stress similar to the tolerant check varieties for these two characteristics.

Procedures for Maintaining Seed Stock
Seed increase of PGI 908-S is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed was produced under cage isolation near Woodland, California in 2003. 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of PGI 908-S 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 PGI 908-S

Experimental Designation(s) CW 39060

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted January 2010

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

CW 040095 (Exp)
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
CW 040095 is a synthetic variety with 449 parent plants which were selected for heat tolerance, salt tolerance, virus resistance, agronomic appearance, and persistence in a hay fields in Saudi Arabia. Parentage of CW 040095 traces to the Cal/West varieties, Super Supreme and Supreme Forager. Approximate germplasm source contributions are as follows: M.varia (1%), Turkistan (9%), Chilean (13%), Peruvian (2%), Indian (19%), African (53%), and Unknown (3%).

Areas of Probable Adaptation
CW 040095 is adapted to the Southwestern area of the U.S. It is intended for use in the Southwestern U.S. and Saudi Arabia. CW 040095 has been tested in California.

Agronomic and Botanical Characteristics
CW 040095 is a very nondormant variety with fall dormancy similar to the FD9 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 040095 has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid, blue alfalfa aphid, and southern root knot nematode, with resistance to bacterial wilt, spotted alfalfa aphid, and moderate resistance to stem nematode. 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 CW 040095 is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 foundation seed requires consent of the breeder. Breeder seed (Syn.1) was produced under cage isolation near Hail, 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of CW 040095 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 _____

Experimental Designation(s) CW 040095

Date NA&MLVRB first accepted this variety January 2008

Date(s) previous amendments were accepted _____

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

CW 046081 (Exp)
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and Breeding History
CW 046081 is a synthetic variety with 180 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. The parentage of CW 046081 traces to CW 620, DK 166, 5683, 5681, Aurora, Cordobesa, and miscellaneous Cal/West Seeds breeding populations. Breeder seed (Syn.1) was produced under cage isolation near Woodland, California in 2004. Seed was bulk harvested from all parent plants.

Areas of Probable Adaptation
CW 046081 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 046081 has been tested in California and Argentina.

Agronomic and Botanical Characteristics
CW 046081 is a moderately dormant variety with fall dormancy similar to the FD 6 check variety. Flower color observed in the Syn.2 generation is greater than 99% purple and 1% white with a trace of variegated, cream, and yellow.

CW 046081 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, and northern root knot nematode, with resistance to Verticillium wilt and cowpea aphid , and moderate resistance to Bacterial wilt and stem nematode. The reaction to Aphanomyces root rot (race 1) has not been adequately tested.

Procedures for Maintaining Seed Stock
Seed increase of CW 046081 is on a limited generation basis with two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed of CW 046081 will be available in 2011.

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

Variety Name _____

Experimental Designation(s) CW 046081

Date NA&MLVRB first accepted this variety January 2011

Date(s) previous amendments were accepted _____

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

PGI 909
(Amended - Change to Procedures for Maintaining Seedstock)

Origin and 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%).

Areas 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 and 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 two generations of breeder and three generations of the foundation and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2, Syn.3, or Syn.4), and certified (Syn.3, Syn.4, or Syn.5) classes will be recognized. Production of Syn.2 breeder, Syn.3 foundation, or Syn.4 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.

Certified Seed Availability and Publication of Certified Seed Production
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, January 2009

Date amendment submitted December 1, 2011

Date recommended by the NVRB: Jan 10, 2012

4C810

Origin and Breeding History
4C810 is a synthetic variety composed of seed from 60 plants selected out of breeding nurseries. These plants trace back to Magna 8 (30%), Magna 801FQ (20%) and Dairyland experimental lines (50%). These plants were evaluated in California for the following: seed yield, spring vigor, fall dormancy, Phytophthora root rot, anthracnose, leaf disease resistance and persistence. Selected plants were grown in isolation in Sloughhouse, CA in 2004 to produce syn1 Breeder seed. 4C810 was developed by Dairyland Seed Company.

Areas of Probable Adaptation
4C810 is adapted to the Southwest Region of the United States and intended for use across the Southwest Region of the United States. The states where it has been tested are California and Arizona.

Agronomic and Botanical Characteristics
4C810 is a nondormant alfalfa variety similar to the dormancy 8 check. Flower color of the syn2 generation is 99% purple and 1% variegated with trace amounts of cream, white and yellow.

4C810 has high resistance to *Fusarium* wilt, pea aphid, northern and southern root knot nematode; resistance to bacterial wilt, *Phytophthora* root rot, and stem nematode; and moderate resistance to anthracnose (Race 1) and *Verticillium* wilt. 4C810 has not been tested for resistance to spotted alfalfa aphid, blue alfalfa aphid or *Aphanomyces* root rot.

Procedures for Maintaining Seed Stock
Breeder seed (Syn. 1) was produced by bulking seed of parent plants in isolation. Syn.2 Breeder seed is allowed. Foundation seed (Syn.2 or 3) can be produced from Breeder seed. Certified seed (Syn. 3 or 4) can be produced from either Syn. 2 Breeder seed or Foundation seed. Two generations of Breeder, Foundation, and Certified seed classes are recognized. A maximum of two harvest years is permitted on stands producing Breeder, a maximum of three harvest years on stands producing Foundation seed, and a maximum of five years for Certified seed. Dairyland Seed will maintain the original Breeder seed for the projected life of the variety.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be available in the fall of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

7011ML

Breeding History
7011ML is a 14 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2008 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. 7011ML was developed by Dairyland Seed Company and it experimental designation is DS912-M.

Area of Probable Adaptation
7011ML 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 Region of the United States. The states where it has been tested are Minnesota, New York and Wisconsin.

Agronomic and Botanical Characteristics
7011ML is a moderately dormant variety similar to the fall dormancy 4 check. 7011ML 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.

7011ML has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode, southern root-knot nematode; resistance to *Aphanomyces* root rot (Race2) and pea aphid. 7011ML 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2008 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

DS715, DS098217 (Exp)

Origin and Breeding History
DS715 is a 50 clone synthetic variety composed of seed from plants selected out of breeding nurseries. These plants trace back to Magna788 (52%), Magna787 (24%) and Dairyland experimental lines (24%). These plants were evaluated for the following: seed yield, spring vigor, fall dormancy, *Phytophthora* root rot, anthracnose, leaf disease resistance and persistence. Selected plants were grown in isolation in Sloughhouse, CA in 2008 to produce Syn. 1 Breeder seed. Seed from parent plants was bulked to produce Breeder seed. DS715, experimental code was developed by Dairyland Seed Company.

Areas of Probable Adaptation
DS715 is adapted to the Southwest Region of the United States and Argentina and intended for use across the Southwest Region of the United States and Argentina. The states where it has been tested are California and Arizona.

Agronomic and Botanical Characteristics
DS715 is a semi-dormant alfalfa variety similar to the dormancy 7 check. Flower color of the Syn.2 generation is 97% purple and 3% variegated with trace amounts of cream, white and yellow.

DS715 has high resistance to anthracnose (Race 1), *Fusarium* wilt, pea aphid, northern root-knot nematode, and southern root-knot nematode; resistance to bacterial wilt, *Phytophthora* root rot, *Verticillium* wilt, and stem nematode. DS715 has not been tested for resistance to spotted alfalfa aphid, blue alfalfa aphid or *Aphanomyces* root rot.

Procedures for Maintaining Seed Stock
Breeder seed (Syn. 1) was produced by bulking seed of parent plants in isolation. Syn.2 Breeder seed is allowed. Foundation seed (Syn.2 or 3) can be produced from Breeder seed. Certified seed (Syn. 3 or 4) can be produced from either Syn. 2 Breeder seed or Foundation seed. Two generations of Breeder, Foundation, and Certified seed classes are recognized. A maximum of two harvest years is permitted on stands producing Breeder, a maximum of three harvest years on stands producing Foundation seed, and a maximum of five years for Certified seed. Dairyland Seed will maintain the original Breeder seed for the projected life of the variety.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be available in the fall of 2012. Certified seed acres are not to be published

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

DS919, DS098221 (Exp)

Origin and Breeding History
DS919 is a synthetic variety composed of seed from 44 plants selected out of breeding nurseries. These plants trace back to Magna 901 (23%), Magna 995 (36%) and Dairyland experimental lines (41%). These plants were evaluated for the following: seed yield, spring vigor, fall dormancy, *Phytophthora* root rot, anthracnose, leaf disease resistance and persistence. Selected plants were grown in isolation in Sloughhouse, CA in 2008. Seed from parent plants were equally bulked each year to produce Syn. 1 Breeder seed. DS919, experimental designation was developed by Dairyland Seed Company.

Areas of Probable Adaptation
DS919 is adapted to the Southwest Region of the United States and Argentina and intended for use across the Southwest Region of the United States and Argentina. The state and country where it has been tested are California and Argentina

Agronomic and Botanical Characteristics
DS919 is a non-dormant alfalfa variety similar to the dormancy 9 check. Flower color of the Syn.2 generation is 99% purple and 1% variegated with trace amounts of cream, white and yellow.

DS919 has high resistance to anthracnose (Race 1), *Fusarium* wilt, pea aphid, northern root-knot nematode; southern root-knot nematode; resistance to *Phytophthora* root rot, bacterial wilt, stem nematode and moderate resistance to *Verticillium* wilt. DS919 has not been tested for resistance to spotted alfalfa aphid, blue alfalfa aphid or *Aphanomyces* root rot.

Procedures for Maintaining Seed Stock
Breeder seed (Syn. 1) were produced by bulking seed of parent plants in isolation. Breeder seed (Syn. 2) was produced from Syn. 1. Foundation seed (Syn.2) can be produced from Syn. 1 Breeder seed or Foundation seed (Syn. 3) from Syn. 2 Breeder seed. Certified seed (Syn. 3) from Syn. 2 Breeder or Foundation, Certified seed (Syn.4) from Foundation seed (Syn. 3). Two generations of Breeder, Foundation and Certified seed classes are recognized. A maximum of two harvest years is permitted on stands producing Breeder, a maximum of three harvest years on stands producing Foundation seed, and a maximum of five years for Certified seed. Dairyland Research International will maintain the original Breeder seed for the projected life of the variety.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be available in the fall of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

DS1020, DS097645 (Exp)

Origin and Breeding History
DS1020 is a synthetic variety composed of seed from 64 parent plants selected out of breeding nurseries. These plants trace back to Magna 995 (50%), Dairyland experimental lines (30%), Sedona (10%), and Rosillo (10%). Plants were selected for reduced fall dormancy, winter activity, spring re-growth, leaf diseases, seed yield, persistence, *Phytophthora* root rot, anthracnose and pea aphid. Selected plants were grown in Sloughhouse, CA in 2008 to produce Syn1 Breeder seed. DS1020, experimental code was developed by Dairyland Seed Company.

Areas of Probable Adaptation
DS1020 is adapted to the Southwest Region of the United States and Argentina and intended for use across the Southwest Region of the United States and Argentina. The states where it has been tested are California and Arizona and the country of Argentina.

Agronomic and Botanical Characteristics
DS1020 is a very non-dormant alfalfa similar to the fall dormancy 10 check. Flower color in the Syn.2 generation is 99% purple, 1% variegated, with traces of cream, white, yellow.

DS1020 is highly resistant to *Fusarium* wilt, pea aphid northern root knot nematode, and southern root knot nematode; resistant to anthracnose (Race 1), bacterial wilt, *Verticillium* wilt, *Phytophthora* root rot and stem nematode. DS1020 has not been tested for resistance to *Aphanomyces* root rot, spotted alfalfa aphid and blue alfalfa aphid.

Procedures for Maintaining Seed Stock
Breeder seed (Syn. 1) were produced by bulking seed of parent plants in isolation. Breeder seed (Syn. 2) was produced from Syn. 1. Foundation seed (Syn.2) can be produced from Syn. 1 Breeder seed or Foundation seed (Syn. 3) from Syn. 2 Breeder seed. Certified seed (Syn. 3) from Syn. 2 Breeder or Foundation, Certified seed (Syn.4) from Foundation seed (Syn. 3). Two generations of Breeder, Foundation and Certified seed classes are recognized. A maximum of two harvest years is permitted on stands producing Breeder, a maximum of three harvest years on stands producing Foundation seed, and a maximum of five years for Certified seed. Dairyland Research International will maintain the original Breeder seed for the projected life of the variety.

Certified Seed Availability and Publication of Certified Seed Production
Certified Seed of DS1020 will be available in the fall of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Stockpile

Breeding History
Stockpile is a 12 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2007 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. Stockpile, experimental designation DSA01-T, was developed by Dairyland Seed Company.

Area of Probable Adaptation
Stockpile is adapted to the North Central Region of the United States and intended for use across the North Central and East Central Region of the United States. The state where it has been tested is Wisconsin.

Agronomic and Botanical Characteristics
Stockpile is a moderately dormant variety similar to the fall dormancy 4 check. Stockpile 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.

Stockpile has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode; resistance to southern root-knot nematode, *Aphanomyces* root rot (Race2) and pea aphid. Stockpile 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2007 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale:
Certified Seed will be available spring of 2013. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Shockwave BR

Breeding History
Shockwave BR is a 40 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2007 to produce Syn. 1 as Breeder Seed. Seed from parent plants were equally bulked each year to produce Breeder seed. Shockwave BR, DSA05-BR, experimental designation was developed by Dairyland Seed Company.

Area of Probable Adaptation
Shockwave BR is adapted to the North Central Region of the United States and intended for use across the North Central and East Central Region of the United States. The state where it has been tested is Wisconsin.

Agronomic and Botanical Characteristics
Shockwave BR is a moderately dormant variety similar to the fall dormancy 4 check. DSA05-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.

Shockwave BR has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode; resistance to southern root-knot nematode, *Aphanomyces* root rot (Race2) and moderate resistance to pea aphid. DSA05-BR 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2007 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2013.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Jan 10, 2012

Magnum 7–Wet

Breeding History
Magnum 7-Wet is a 12 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2007 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. Magnum 7-Wet was developed by Dairyland Seed Company and it experimental designation is DSA06-BR.

Area of Probable Adaptation
Magnum 7-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 Region of the United States. The states where it has been tested are New York and Wisconsin.

Agronomic and Botanical Characteristics
Magnum 7-Wet is a moderately dormant variety similar to the fall dormancy 4 check. Magnum 7-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 7-Wet has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode, southern root-knot nematode; resistance to *Aphanomyces* root rot (Race2) and pea aphid. Magnum 7-Wet 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2007 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2013. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Mariner IV

Breeding History
Mariner IV is an 8 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2007 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. Mariner IV was developed by Dairyland Seed Company and it experimental designation is DSA07-BR.

Area of Probable Adaptation
Mariner IV 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 Region of the United States. The states where it has been tested are Minnesota, New York and Wisconsin.

Agronomic and Botanical Characteristics
Mariner IV is a moderately dormant variety similar to the fall dormancy 4 check. Mariner IV 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.

Mariner IV has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode, southern root-knot nematode; resistance to *Aphanomyces* root rot (Race2) and pea aphid. Mariner IV 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2007 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2013. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Cisco II

Breeding History
Cisco II is a 34 clone synthetic. Thirty of parent clones were selected out of high saline soils for persistence, fall dormancy and forage yield and 4 clones were selected from forage yield plots and/or disease nurseries. These parent plants were 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) and forage yield production under salt stress. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2006 to produce Syn. 1 as Breeder Seed. Seed from parent plants were equally bulked each year to produce Breeder seed. Cisco II was developed by Dairyland Seed Company and it experimental designation is DSB38FD6.

Area of Probable Adaptation
Cisco II is adapted to the North Central and Southwest Regions of the United States and intended for use across the Southern half of the United States. The states where it has been tested are Wisconsin and California.

Agronomic and Botanical Characteristics
Cisco II is a moderately dormant variety similar to the fall dormancy 6 check. Cisco II 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.

Cisco II has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, *Verticillium* wilt, pea aphid, northern root-knot nematode; resistance to anthracnose (Race 1), stem nematode, southern root-knot nematode and moderate resistance to *Aphanomyces* root rot (Race1). Cisco II 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2006 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

FSG 229CR
(Amended – Pea Aphid, Stem Nematode, Northern Root-Knot Nematode)

Breeding History
FSG 229CR is a 60 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 experimentals. Parent plants were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2003 to produce Syn. 1 as Breeder Seed. Seed from parent plants were bulked to produce Breeder seed. FSG 229CR was developed by Dairyland Seed Company and its experimental designation is DS101.

Area of Probable Adaptation
FSG 229CR is adapted to the North Central and East Central Regions 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 and Michigan.

Agronomic and Botanical Characteristics
FSG 229CR is a dormant variety similar to the fall dormancy 2 check. FSG 229CR 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.

FSG 229CR has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, northern root-knot nematode; resistance to *Aphanomyces* root rot (Race1), stem nematode and moderate resistance to pea aphid. FSG 229CR has not been tested for resistance to blue alfalfa aphid and spotted alfalfa aphid.

Procedures for Maintaining Seed Stock
Breeder seed (Syn. 1) was produced by bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2003. Seed from parental clones were bulked. Foundation seed (Syn. 2 or 3) was produced from Breeder or second generation Foundation seed and Certified seed (Syn. 3 or 4) from Foundation seed. One generation each of Breeder and two generations Foundation and Certified seed classes are recognized. The second-generation foundation seed may be produced at the discretion of Dairyland Research. 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 Breeder 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.

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Harvestar 818ML

Breeding History
Harvestar 818ML is a 16 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were progeny tested for one or more of the following traits: forage yield, stand persistence, forage quality, multileaf, resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt and *Aphanomyces* root rot (Race 1 and 2). All of parent plants trace back to Dairyland experimental germplasm. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2008 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. Harvestar 818ML was developed by Dairyland Seed Company and its experimental designation is DS36ML.

Area of Probable Adaptation
Harvestar 818ML is adapted to the North Central Region of the United States and intended for use across the North Central Region of the United States. The state where it has been tested is Wisconsin.

Agronomic and Botanical Characteristics
Harvestar 818ML is a moderately dormant variety similar to the fall dormancy 4 check. Harvestar 818ML 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.

Harvestar 818ML 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 *Aphanomyces* root rot (Race2), southern root-knot nematode, pea aphid and moderate resistance to stem nematode. Harvestar 818ML 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2008 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

HybriForce-2600

Breeding History

HybriForce-2600 is a three clone 75-95% hybrid alfalfa variety consisting of a female, maintainer and restorer clones. Parent clones were selected out of forage yield plots and/or disease nurseries. These parent clones were tested for male sterility, maintaining and restoration ability. The parent clones 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 clone, maintainer clone and restorer clone trace to Dairyland experimental germplasm. Female seed (D-1009) was generated by crossing a cytoplasmic male sterile female clone by a maintainer clone in field isolation and inter-pollinated by honey, leaf cutting and bumble bees. The female clones were harvested to produce the female Breeder Seed near Sloughhouse, California in 2005-07. Female seed was kept separate each year to produce Breeder seed. Male Breeder seed (Syn. 1) (DS0571M) was produced in isolation in 2003 and bulked near Sloughhouse, CA**.** The female, maintainer and restorer clones were propagated by vegetative cuttings for Breeder Seed increase. HybriForce-2600 was developed by Dairyland Seed Company and it experimental designation is msSunstra-809.

Area of Probable Adaptation

HybriForce-2600 is adapted to the North Central, Southwest, Great Plains Regions of the United States and intended for use across the North Central, Southwest, and Great Plains Regions of the United States region of the United States. The states where it has been tested are Wisconsin, Oklahoma, New Mexico and California.

Agronomic and Botanical Characteristics

HybriForce-2600 is a moderately dormant variety similar to the fall dormancy 6 check. HybriForce-2600 is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 9% variegated with trace amounts of cream, white and yellow. DS0571M is 1% white seeded

HybriForce-2600 has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), northern root-knot nematode, stem nematode; resistance to *Verticillium* wilt, *Aphanomyces* root rot (Race1), pea aphid and southern root-knot nematode. HybriForce-2600 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 clone (A) by the maintainer clone (B) in field isolation near Sloughhouse, CA in 2005-07. Female seed (D-1009) was kept separate across production years. Male Breeder seed (Syn. 1) (DS0571M) was produced in isolation in 2003 and bulked near Sloughhouse, CA**.** Male Foundation seed (Syn. 2) (DS0571M) was produced from Breeder seed. The 75-95% hybrid seed (D-1009xDS0571M=F1) was produced from crossing female seed by either Syn. 1 or Syn. 2 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 to be First Offered for Sale

Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

PVP Information

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

KF401B

Breeding History
KF401B is an 8 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2008 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated by vegetative cuttings were equally bulked each year to produce Breeder seed. KF401B was developed by Dairyland Seed Company and it experimental designation is DS915-BR.

Area of Probable Adaptation
KF401B 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 Region of the United States. The states where it has been tested are Minnesota, New York and Wisconsin.

Agronomic and Botanical Characteristics
KF401B is a moderately dormant variety similar to the fall dormancy 4 check. KF401B 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.

KF401B 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, *Aphanomyces* root rot (Race2) and pea aphid. KF401B 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2008 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

KF402H

Breeding History

KF402H is a three clone 75-95% hybrid alfalfa variety consisting of a female, maintainer and restorer clones. Parent clones were selected out of forage yield plots and/or disease nurseries. These parent clones were tested for male sterility, maintaining and restoration ability. The parent clones 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 clone, maintainer clone and restorer clone trace to Dairyland experimental germplasm. Female seed (D-1007) was generated by crossing a cytoplasmic male sterile female clone by a maintainer clone in field isolation and inter-pollinated by honey, leaf cutting and bumble bees. The female clones were harvested to produce the female Breeder Seed near Sloughhouse, California in 2005-7. Female seed was kept separate each year to produce Breeder seed. Male Breeder seed (Syn. 1) (DS1063M) was produced in isolation in 2003 and bulked near Sloughhouse, CA. The female, maintainer and restorer clones were propagated by vegetative cuttings for Breeder seed increase. KF402H was developed by Dairyland Seed Company and it experimental designation is msSunstra-902.

Area of Probable Adaptation

KF402H is adapted to the North Central and East Central Region of the United States and intended for use across the Northern half of the United States. The states where it has been tested are Minnesota, Pennsylvania and Wisconsin.

Agronomic and Botanical Characteristics

KF402H is a moderately dormant variety similar to the fall dormancy 4 check. KF402H is very winter hardy similar to the winter survival 2 check. Flower color in the Syn. 2 generation is 90% purple, 9% variegated with trace amounts of cream, white and yellow. DS1063M is 1% white seeded.

KF402H 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, pea aphid and southern root-knot nematode. KF402H 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 clone (A) by the maintainer clone (B) in field isolation near Sloughhouse, CA in 2005-07. Female seed (D-1007) was kept separate across production years. Male Breeder seed (Syn. 1) (DS1063M) was produced in isolation in 2003 and bulked near Sloughhouse, CA**.** Male Foundation seed (Syn. 2) (DS1063M) was produced from Breeder seed. The 75-95% hybrid seed (D-1007xDS1063M=F1) was produced from crossing female seed by either Syn. 1 or Syn. 2 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 to be First Offered for Sale

Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

PVP Information

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

MagnaGraze II

Breeding History
MagnaGraze II is a 39 clone synthetic. The parent clones were selected out of forage yield plots for deep set crowns and traffic tolerance and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm in which over 65% trace back to Magnum. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2006 to produce Syn. 1 as Breeder Seed. Seed from parent plants were equally bulked each year to produce Breeder seed. MagnaGraze II was developed by Dairyland Seed Company and its experimental designation is DS920SC.

Area of Probable Adaptation
MagnaGraze II is adapted to the North Central Region of the United States and intended for use across the Northern half of the United States. The state where it has been tested is Wisconsin.

Agronomic and Botanical Characteristics
MagnaGraze II is a dormant variety similar to the fall dormancy 3 check. MagnaGraze II 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.

MagnaGraze II has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode; resistance to *Aphanomyces* root rot (Race2), southern root-knot nematode and moderate resistance to pea aphid. MagnaGraze II 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2006 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Jan 10, 2012

Magnum 7

Breeding History
Magnum 7 is a 12 clone synthetic. The parent clones were selected out of forage yield plots and/or disease nurseries. These parent plants were 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 and 2). All of parent plants trace back to Dairyland experimental germplasm in which over 50% trace back to Magnum. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2007 to produce Syn. 1 as Breeder Seed. Seed from parent plants propagated from vegetative cuttings were equally bulked each year to produce Breeder seed. Magnum 7 was developed by Dairyland Seed Company and its experimental designation is DS913-T

Area of Probable Adaptation
Magnum 7 is adapted to the North Central and East Central Region of the United States and intended for use across the Northern half of the United States. The states where it has been tested are Minnesota, New York, Pennsylvania and Wisconsin.

Agronomic and Botanical Characteristics
Magnum 7 is a moderately dormant variety similar to the fall dormancy 4 check. Magnum 7 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 7 has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, anthracnose (Race 1), *Verticillium* wilt, *Aphanomyces* root rot (Race1), stem nematode, northern root-knot nematode; resistance to *Aphanomyces* root rot (Race2), pea aphid and southern root-knot nematode. Magnum 7 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2007 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

Magnum Salt

Breeding History:
Magnum Salt is a 40 clone synthetic. The parent clones were selected out of saline soils for persistence, branch root and forage yield. All of parent plants trace back to Dairyland experimental germplasm with greater than 50% trace to Magnum. They were planted in field isolation and inter-pollinated by honey, leaf cutting and bumble bees near Sloughhouse, California in 2008 to produce Syn. 1 as Breeder Seed. Seed from parent plants were equally bulked each year to produce Breeder seed. Magnum Salt was developed by Dairyland Seed Company and it experimental designation is DS921 Salt.

Area of Probable Adaptation
Magnum Salt is adapted to the North Central Region of the United States and intended for use across the North Central, Great Plains and Winterhardy Intermountain Regions of the United States. The states where it has been tested are North Dakota and Wisconsin.

Agronomic and Botanical Characteristics
Magnum Salt is a moderately dormant variety similar to the fall dormancy 4 check. Magnum Salt 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 Salt has high resistance to bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, *Verticillium* wilt, stem nematode, northern root-knot nematode; resistance to *Aphanomyces* root rot (Race 1), anthracnose (Race 1), pea aphid and southern root-knot nematode. Magnum Salt 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 bulking seed of parent plants which were grown in field isolation near Sloughhouse, CA in 2008 or Breeder seed (Syn.2) produced from Syn.1. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 2 or 3) from either Breeder or Foundation seed. Two generations of Breeder, one generation of 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 Breeder seed for the projected life of the variety.

Date Certified Seed to be First Offered for Sale
Certified Seed will be available spring of 2012. Certified seed acres are not to be published.

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Apr 02, 2012

30R40

Origin and Breeding History

30R40 is a synthetic variety with 105 parent plants. Forage Genetics International experimental designation is FG R44BD13. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2004.

Areas of Probable Adaptation

30R40 is adapted to the North Central and Winterhardy Intermountain regions. This variety has been tested in Wisconsin, Iowa, Colorado and Idaho and is intended for use in the North Central and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

30R40 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 97% purple, 3% variegated with a trace of cream, white and yellow. This variety has high multifoliolate leaf expression.

30R40 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. 30R40 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1); with resistance to stem nematode and root knot nematode (Northern *M. hapla)*. Reaction to spotted alfalfa aphid, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that *cp4-epsps* null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

6610N
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
The selection criteria used in the development of this involved selection of plants for winter active growth and high forage yield and persistence from older trials. 6610N was developed by Forage Genetics.

Area of Probable Adaptation
This variety is adapted to the Southwest and the Moderately Winterhardy Intermountain regions. This variety has been tested in California and Idaho. It will be used in the Southwest and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
Test variety is Very Non-Dormant similar to FD6 check. Flower color (Syn1) is 94% purple, 6% variegated with a trace of cream, yellow and white. This variety has high multifoliolate leaf expression. Test variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
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. Breeder seed was produced in the field near Nampa, ID in 2000. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

Date Certified Seed to be First Offered for Sale
Certified seed will be marketed in 2007.

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 6610N

Experimental Designation(s) FG 60M1053

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted January 2011

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

AmeriStand 433T RR

Origin and Breeding History

AmeriStand 433T RR is a synthetic variety with 105 parent plants. Forage Genetics International experimental designation is FG R34BD02T. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, forage yield, forage quality, persistence under grazing 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2004.

Areas of Probable Adaptation

AmeriStand 433T RR is adapted to the North Central and East Central regions. This variety has been tested in Wisconsin, Iowa and New York and is intended for use in the North Central and East Central regions.

Agronomic and Botanical Characteristics

AmeriStand 433T RR is Fall Dormant similar to FD3 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 98% purple, 2% variegated with a trace of cream, white and yellow.

AmeriStand 433T RR is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. AmeriStand 433T RR has high resistance to anthracnose (Race 1), bacterial wilt, Phytophthora root rot, Aphanomyces root rot (Race 1); with resistance to Fusarium wilt, Verticillium wilt, spotted alfalfa aphid and pea aphid. Reaction to root knot nematode (Northern *M. hapla*), 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

AmeriStand 815T RR
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
Ameristand 815T RR was developed by Forage Genetics. The selection criteria used in the development of this variety include Roundup herbicide tolerance, forage yield, winter-active growth, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (Race 1) and Phytophthora root rot. Parent plants contain tolerance to Roundup® (glyphosate) herbicide conferred by the CP4 5-enolpyruvylshikimate-3-phosphate synthase (*cp4-epsps*) transgene, specifically, the USDA deregulated Roundup Ready® alfalfa transgenic events J101 and/or J163 (OECD unique identifiers: MON-00101-8 and MON-00163-7, respectively).

Area of Probable Adaptation
This variety is adapted to California and the low desert areas of the West. This variety has been tested in California and Idaho. It will be used in the Southwest.

Agronomic and Botanical Characteristics
Test variety has fall dormancy similar to FD7 checks. Flower color (Syn1) is 100% purple with a trace of yellow, white, cream and variegated. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. Test variety has improved forage yield under saline stress similar to the salt tolerant check. Test variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
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), and certified (Syn 2 or Syn 3) classes will be recognized. 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. Production of Syn 2 foundation seed requires the consent of the breeder. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety.)

Date Certified Seed to be First Offered for Sale
Certified seed will be marketed in 2007.

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 815T RR

Experimental Designation(s) FG R74BD27, RR04BD-409

Date NA&MLVRB first accepted this variety November 21, 2006

Date(s) previous amendments were accepted November 21, 2007

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

AmeriStand 901 TS
(Amended – Forage Production Under Salt Stress Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
AmeriStand 901 TS is a synthetic variety consisting of 67 parent plants developed by Forage Genetics. 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 isintended for use in the Southwest regions.

Agronomic and 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 improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.
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.

Certified Seed Availability and Publication of Certified seed Production
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 to be First Offered for Sale
Certified seed will be marketed in 2009.

VP 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 901 TS

Experimental Designation(s) FG 92T206

Date NA&MLVRB first accepted this variety January 2009

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

Arriba II
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Origin and Breeding History
The selection criteria used in the development of this variety includes winter active growth, high forage yield, multifoliolate expression and persistence in older trials and/or nurseries. Recurrent phenotypic selection was used to develop source populations and identify parent plants. Arriba II was developed by Forage Genetics

Areas of Probable Adaptation
This variety is adapted to California and the low desert areas of the West. This variety has been tested in California. It will be used in the Southwest.

Agronomic and Botanical Characteristics
Test variety has fall dormancy similar to FD6 checks. Flower color (Syn1) is 98% purple, 2% variegated, with a trace of yellow, white and cream. This variety has high multifoliolate leaf expression. Test variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

This variety has high resistance to Anthracnose (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, root knot nematode (M. hapla) and stem nematode. Reaction to blue alfalfa aphid, aphanomyces root rot and Verticillium wilt 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), and certified (Syn 2 or Syn 3) classes will be recognized. 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. Production of Syn2 foundation seed requires the consent of the breeder. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively

Date Certified Seed to be First Offered for Sale
Certified seed will be marketed in 2007.

PVP Information
No decision has been made concerning Plant Variety Protection Act.

Variety Name Arriba II

Experimental Designation(s) FG 73M041

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

DKA65-10RR

Origin and Breeding History

DKA65-10RR is a synthetic variety with 62 parent plants. Forage Genetics International experimental designation is FG R65BD278. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2005.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD6 checks. Flower color (Syn2) is 100% purple, with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. DKA65-10RR has high multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, and stem nematode: with resistance to Verticilium wilt, root knot nematode (Northern *M. Hapla*) and root knot nematode (Southern *M. Incognita*). 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FSG 406
(Amended - Name Change)

1. 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, Phytophthora root rot, and Aphanomyces root rot.

2. This variety is adapted to the North Central region. This variety has been tested in Wisconsin and Iowa, and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain, Winterhardy Intermountain and Great Plains regions.

3. Test variety is moderately fall dormant, similar to FD4 checks. Test variety is Extremely Winterhardy, similar to WSI checks. Flower color (Syn2) is 88% purple, 7% variegated, 2% white, 2% cream and 1% yellow. This variety has high multifoliolate leaf expression.

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

5. Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn I), 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 near Nampa, Idaho in 1998. Sufficient foundation seed for the projected life of the variety will be maintained by Forage Genetics. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

6. Certified seed will be marketed in 2002.

7. No decision has been made concerning Plant Variety Protection Act.

8. The information in this application may not be forwarded to the PVP office.

Variety Name FSG 406

Experimental Designation(s) FG 4M69

Date NA&MLVRB first accepted this variety 2002

Date(s) previous amendments were accepted N/A

Date amendment submitted Oct 14, 2012

FSG 413

Origin and Breeding History
FSG 413 is a synthetic variety with 14 parent clones. Forage Genetics experimental designation is FG 45M112. Parent clones were selected for forage yield, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root rot nematode and Aphanomyces root rot (Race 1 and Race 2). Phenotypic selection was used to identify the parent clones. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2005.

Areas of Probable Adaptation
FSG 413 is adapted to the North Central, East Central and Great Plains. This variety has been tested in Nebraska, Iowa and Wisconsin and is intended for use in the North Central, East Central and Great Plains regions.

Agronomic and Botanical Characteristics
FSG 413 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 94% purple, 3% variegated, 2% white, 1% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FSG 413 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, spotted alfalfa aphid and pea aphid. Reaction to root knot nematode (Northern *M. hapla)* and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2005. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

GUNNER

Origin and Breeding History
GUNNER is a synthetic variety with 14 parent clones. Forage Genetics International experimental designation is FG 57M121. Parent clones were selected for forage yield, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root rot nematode and Aphanomyces root rot (Race 1 and Race 2). Phenotypic selection was used to identify the parent clones. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation
GUNNER is adapted to the North Central, East Central, Great Plains and Winterhardy Intermountain. This variety has been tested in Nebraska, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Great Plains and Winterhardy Intermountain.

Agronomic and Botanical Characteristics
GUNNER is Moderately Fall Dormant similar to FD5 check. Test variety is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 94% purple, 5% variegated and 1% yellow with a trace of cream and white. This variety has high multifoliolate leaf expression.

GUNNER 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 and 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
Breeder seed (Syn1) was produced near Nampa, ID in 2007. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

L-444RR

Origin and Breeding History

L-444RR is a synthetic variety with 105 parent plants. Forage Genetics International experimental designation is FG R44BD11. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2004.

Areas of Probable Adaptation

L-444RR is adapted to the North Central and Winterhardy Intermountain regions. This variety has been tested in Wisconsin, Iowa, Colorado and Idaho and is intended for use in the North Central and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

L-444RR is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 97% purple, 3% variegated with a trace of cream, white and yellow. This variety has high multifoliolate leaf expression.

L-444RR is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. L-444RR has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1); with resistance to stem nematode and root knot nematode (Northern *M. hapla)*, Reaction to spotted alfalfa aphid, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

MegaMax RR

Origin and Breeding History

MegaMax RR is a synthetic variety with 105 parent plants. Forage Genetics International experimental designation is FG R44BD10. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2004.

Areas of Probable Adaptation

MegaMax RR is adapted to the North Central and Winterhardy Intermountain regions. This variety has been tested in Wisconsin, Iowa, Colorado and Idaho and is intended for use in the North Central and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

MegaMax RR is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 98% purple, 2% variegated with a trace of cream, white and yellow. This variety has high multifoliolate leaf expression.

MegaMax RR is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. MegaMax RR has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1); with resistance to stem nematode and root knot nematode (Northern *M. hapla),* Reaction to spotted alfalfa aphid, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

Mutiny
(Amended – Name Change)

Breeding History
The selection criteria used in the development of this variety include Roundup herbicide tolerance, 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, stem nematode and Aphanomyces root rot (Race 1). Parent plants contain tolerance to Roundup® (glyphosate) herbicide conferred by the CP4 5-enolpyruvylshikimate-3-phosphate synthase (*cp4-epsps*) transgene, specifically, the USDA deregulated Roundup Ready® alfalfa transgenic events J101 and/or J163 (OECD unique identifiers: MON-00101-8 and MON-00163-7, respectively). Mutiny was developed by Forage Genetics.

Area of Probable Adaptation
This variety is adapted to the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions. This variety has been tested in Washington, Colorado and Idaho, and is intended for use in the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
Test variety is Moderately Dormant, similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower color (Syn2) is 98% purple and 2% variegated with a trace of yellow, cream and white. This variety has high multifoliolate leaf expression. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene.

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

Certified Seed Availability and Publication of Certified seed Production
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), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety.)

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 Mutiny

Experimental Designation(s) FG R44BD18, RR04BD-456

Date NA&MLVRB first accepted this variety January 2007

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

Revolt

Origin and Breeding History
Revolt is a synthetic variety with 35 parent plants. Forage Genetics International experimental designation is FG R65BD277. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2005.

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

Agronomic and Botanical Characteristics
Test variety is Moderately Fall Dormant similar to FD6 checks. Flower color (Syn2) is 100% purple, with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R65BD277 has high multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt and Phytophthora root rot: with resistance to Verticilium wilt, root knot nematode (Northern *M. Hapla*) and stem nematode. Reaction to Aphanomyces root rot, pea aphid, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

Revolution
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
Revolution was developed by Forage Genetics. The selection criteria used in the development of this variety include Roundup tolerance, forage yield, winter-active growth, 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 and/or Race 2). Parent plants contain tolerance to Roundup® (glyphosate) herbicide conferred by the CP4 5-enolpyruvylshikimate-3-phosphate synthase (*cp4-epsps*) transgene, specifically, the USDA deregulated Roundup Ready® alfalfa transgenic events J101 and/or J163 (OECD unique identifiers: MON-00101-8 and MON-00163-7, respectively).

Area of Probable Adaptation
This variety is adapted to California and the low desert areas of the West. This variety has been tested in California and Idaho. It will be used in the Southwest.

Agronomic and Botanical Characteristics
Test variety has fall dormancy similar to FD8 checks. Flower color (Syn2) is 100% purple with a trace of yellow, white, cream and variegated. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. Variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
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), and certified (Syn 2 or Syn 3) classes will be recognized. 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. Production of Syn2 foundation seed requires the consent of the breeder. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Date Certified Seed to be First Offered for Sale
Certified seed will be marketed in 2006.

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 Revolution

Experimental Designation(s) R83T905, RR03BD-181

Date NA&MLVRB first accepted this variety January 2006

Date(s) previous amendments were accepted January 2008

Date amendment submitted November, 30 2011

Date recommended by the NVRB: Apr 03, 2012

Sun Quest
(Amended – Forage Production Under Salt Stress Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History:
Sun Quest is a synthetic variety consisting of 85 parent plants developed by Forage Genetics. Plants were selected based on fall dormancy reaction, persistence and for Phytophthora root rot 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.

Agronomic and Botanical Characteristics
Test variety is Very Non-Dormant similar to FD 9 check. Flower Color (Syn2) is 100% purple with a trace of variegated, white, cream and yellow. Test variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production:
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 2006. 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 to be First Offered for Sale
Certified seed will be marketed in 2010.

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 Sun Quest

Experimental Designation(s) FG 96T707

Date NA&MLVRB first accepted this variety November 30, 2009

Date(s) previous amendments were accepted January, 2011

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

WL 367RR.HQ
(Amended – Name Change)

1. The selection criteria used in the development of this variety include Roundup herbicide tolerance, 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 and Race 2). Parent plants contain tolerance to Roundup® (glyphosate) herbicide conferred by the CP4 5-enolpyruvylshikimate-3-phosphate synthase (*cp4-epsps*) transgene, specifically, the USDA deregulated Roundup Ready® alfalfa transgenic events J101 and/or J163 (OECD unique identifiers: MON-00101-8 and MON-00163-7, respectively).

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

3. Test variety is Moderately Dormant, similar to FD5 check. Test variety is Very Winterhardy, similar to WS2 check. Flower color (Syn2) is 99% purple, 1% variegated with a trace of yellow, cream and white. This variety has high multifoliolate leaf expression. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene.

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

5. 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), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 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. At least one glyphosate application is required during early stand establishment so that *cp4-epsps* null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety.)

6. Certified seed will be marketed in 2007.

7. No decision has been made concerning Plant Variety Protection Act.

8. The information in this application may not be forwarded to the PVP office.

Variety Name WL 367RR.HQ

Experimental Designation(s) FG R54BD14

Date A&MLVRB first accepted this variety January 16, 2007

Date(s) previous amendments were accepted

Date amendment submitted October 19, 2012

WL 352LH.RR

Origin and Breeding History
WL 352LH.RR is a synthetic variety with 88 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI PLH resistant breeding lines for glyphosate tolerance, forage yield, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
WL 352LH.RR is adapted to the North Central and East Central regions. This variety has been tested in Iowa, Pennsylvania and Wisconsin and is intended for use in the North Central and East Central regions.

Agronomic and Botanical Characteristics
WL 352LH.RR is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 88% purple, 10% variegated and 2% yellow with a trace of cream and white.

WL 352LH.RR is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. WL 352LH.RR 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 pea aphid, moderate resistance to stem nematode and low resistance to spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

WL 440HQ
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
WL 440HQ was developed by Forage Genetics. It 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 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 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. Variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

This variety has high resistance to Anthracnose (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.

Certified Seed Availability and Publication of Certified seed Production
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 to be 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

Experimental Designation(s) FG 55W278

Date NA&MLVRB first accepted this variety January 2009

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

WL 454HQ.RR

Origin and Breeding History
WL 454HQ.RR is a synthetic variety with 63 parent plants developed by Forage Genetics. Forage Genetics International experimental designation is FG R66Bx320. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

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

Agronomic and Botanical Characteristics
Test variety is Moderately Fall Dormant similar to FD6 checks. Flower color (Syn2) is 100% purple, with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. WL 454HQ.RR has moderate multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to anthracnose (Race 1), Fusarium wilt, Phytophthora root rot, pea aphid, and stem nematode: with resistance bacterial wilt, Verticillium wilt and spotted alfalfa aphid. Reaction to Aphanomyces root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

WL 535HQ
(Amended – Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
WL 535HQ was developed by WL Research. It is a 163-plant synthetic variety resulting from a cross between two elite experimental lines. Source material traces to WL 320, WL 457, WL 512, WL 450, and WL 451. Approximate germplasm source contributions are Arabian (24%), African (30%), Indian (10%), Chilean (16%), Turkistan (8%), Flemish (6%), Ladak (30/6), and M. varia (3%).

Area of Probable Adaptation
This variety is adapted to and intended for use in the southwestern United States. WL 535HQ has been tested in California.

Agronomic and Botanical Characteristics
Flower color of WL 535HQ at syn2 approximates 100% purple with a trace of variegated. The fall dormancy of WL 535HQ is similar to Pierce (Class 8). Variety has improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
Breeder seed (syn1) was produced in 1996 on 163 plants under cage isolation at Warden, Washington. Sufficient foundation (syn2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of breeder (syn1), two generations of foundation (syn2 or 3) and three generations of certified (syn2, 3 or 4) seed are recognized. The maximum permitted length of stand for foundation and certified seed fields are three and five years, respectively. Production of syn3 foundation seed requires consent of the breeder.

Date Certified Seed to be First Offered for Sale
Certified seed will be marketed in 2000.

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 535HQ

Experimental Designation(s) W320

Date NA&MLVRB first accepted this variety January 2000

Date(s) previous amendments were accepted January 2006

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

WL 656HQ
(Amended – Forage Production Under Salt Stress Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
WL 656HQ is a synthetic variety consisting of 120 parent plants developed by Forage Genetics. Plants were selected based on forage yield, fall dormancy reaction, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium 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 Southwest. This variety has been tested in California and is intended for use in the Southwest.

Agronomic and 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 improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
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 to be First Offered for Sale
Certified seed will be marketed in 2010.

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 656HQ

Experimental Designation(s) FG 95T284

Date NA&MLVRB first accepted this variety January 2010

Date(s) previous amendments were accepted

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG 46M126 (Exp)

Origin and Breeding History
FG 46M126 is a synthetic variety with 65 parent plants. Parent plants were selected for forage yield, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root rot nematode and Aphanomyces root rot (Race 1 and Race 2). Phenotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas of Probable Adaptation
FG 46M126 is adapted to the North Central, East Central and Winterhardy Intermountain regions. This variety has been tested in New York, Idaho and Wisconsin and is intended for use in the North Central, East Central and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG 46M126 is Fall Dormant similar to FD3 check. Test variety is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 94% purple, 3% variegated, 2% white, 1% yellow with a trace of cream.. This variety has high multifoliolate leaf expression.

FG 46M126 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and pea aphid; with resistance to stem nematode and spotted alfalfa aphid. Reaction to root knot nematode (Northern *M. hapla)* and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2006. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG 48W201 (Exp)

Origin and Breeding History
FG 48W201 is a synthetic variety with ten parent plants developed by Forage Genetics. Parent plants were selected for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1). Phenotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG 48W201 is adapted to the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions. It has been tested in Idaho and Colorado and is intended for use in the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG 48W201 is Moderately Fall Dormant similar to FD4 check. Flower Color (Syn2) is 97% purple, 1% variegated, 1% yellow and 1% white with a trace cream. FG 48W201 has moderate multifoliolate leaf expression.

FG 48W201 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). Reaction to root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2008. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG 48W202 (Exp)

Origin and Breeding History
FG 48W202 is a synthetic variety with 17 parent plants developed by Forage Genetics. Parent plants were selected for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1). Phenotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG 48W202 is adapted to the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions. It has been tested in Idaho and Colorado and is intended for use in the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG 48W202 is Moderately Fall Dormant similar to FD4 check. Flower Color (Syn2) is 96% purple, 2% variegated, 1% yellow and 1% white with a trace cream. FG 48W202 has moderate multifoliolate leaf expression.

FG 48W202 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and stem nematode; with resistance to pea aphid. Reaction to Verticillium wilt, root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2008. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG 48W203 (Exp)

Origin and Breeding History
FG 48W203 is a synthetic variety with 20 parent plants developed by Forage Genetics. Parent plants were selected for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1). Phenotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG 48W203 is adapted to the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions. It has been tested in Idaho and Colorado and is intended for use in the Winterhardy Intermountain and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG 48W203 is Moderately Fall Dormant similar to FD4 check. Flower Color (Syn2) is 94% purple, 4% white and 2% cream with a trace of yellow and variegated. FG 48W203 has moderate multifoliolate leaf expression.

FG 48W203 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and stem nematode; with resistance to pea aphid. Reaction to Verticilium wilt, root knot nematode, spotted alfalfa aphid and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2008. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG 87M01 (Exp)

Origin and Breeding History
FG 87M01 is a synthetic variety with 111 parent plants developed by Forage Genetics. Parent plants were selected for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1). Phenotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation
FG 87M01 is adapted to the Southwest and Moderately Winterhardy Intermountain regions. It has been tested in California and is intended for use in the Southwest and Moderately Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG 87M01 is Very Non-Dormant similar to FD9 check. Flower Color (Syn2) is 100% purple with a trace of variegated, yellow, white and cream. FG 87M01 has moderate multifoliolate leaf expression.

FG 87M01 has high resistance to Fusarium wilt, pea aphid and spotted alfalfa aphid; with resistance to anthracnose (Race 1), Phytophthora root rot, and stem nematode. Reaction to Verticillium wilt, bacterial wilt, Aphanomyces root rot, root knot nematode and blue alfalfa aphid has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed (Syn1) was produced near Nampa, ID in 2007. Forage Genetics will maintain sufficient breeder (Syn1) and/or foundation (Syn2 or Syn3) seed for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Jan 10, 2012

FG 96T706 (Exp)
(Amended – Forage Production Under Salt Stress Salt Tolerance of Germinating Alfalfa Seeds)

Breeding History
FG 96T706 is a synthetic variety consisting of 136 parent plants developed by Forage Genetics. Plants were selected based on fall dormancy reaction, persistence and for Phytophthora root rot 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. This variety has been tested in California and is intended for use in the Southwest.

Agronomic and 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 improved salt tolerance of germinating alfalfa seeds similar to the tolerant check.

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

Certified Seed Availability and Publication of Certified seed Production
Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation 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 2006. 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 to be First Offered for Sale
Certified seed will be marketed in 2010.

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 _____

Experimental Designation(s) FG 96T706

Date NA&MLVRB first accepted this variety January 2010

Date(s) previous amendments were accepted _____

Date amendment submitted November 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R46BD175 (Exp)

Origin and Breeding History

FG R46BD175 is a synthetic variety with 105 parent plants developed by Forage Genetics. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas of Probable Adaptation

FG R46BD175 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Indiana, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R46BD175 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 96% purple, 4% variegated with a trace of cream, white and yellow. This variety has high multifoliolate leaf expression.

FG R46BD175 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R46BD175 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R46M197 (Exp)

Origin and Breeding History

FG R46M197 is a synthetic variety with 23 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas of Probable Adaptation

FG R46M197 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Indiana, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R46M197 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 96% purple, 1% variegated, 1% cream, 1% white and 1% yellow. This variety has high multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

FG R46M197 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R46M197 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R47M120 (Exp)

Origin and Breeding History

FG R47M120 is a synthetic variety with 55 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R47M120 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R47M120 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 97% purple, 2% variegated and 1% yellow with a trace of cream and white. This variety has high multifoliolate leaf expression.

FG R47M120 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R47M120 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and spotted alfalfa aphid; with resistance to stem nematode and pea aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R47M312 (Exp)

Origin and Breeding History

FG R47M312 is a synthetic variety with 75 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R47M312 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R47M312 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 95% purple, 3% variegated, 1% white and 1% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R47M312 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R47M312 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, spotted alfalfa aphid and pea aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R47M318 (Exp)

Origin and Breeding History
FG R47M318 is a synthetic variety with 105 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation
FG R47M318 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG R47M318 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 94% purple, 3% variegated, 1% white and 2% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R47M318 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R47M318 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and stem nematode; with resistance to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R47M324 (Exp)

Origin and Breeding History

FG R47M324 is a synthetic variety with 94 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R47M324 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Indiana, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R47M324 is Moderately Fall Dormant similar to FD5 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 93% purple, 3% variegated, 1% white and 3% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R47M324 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R47M324 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and stem nematode; with resistance to pea aphid and spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R48A138 (Exp)

Origin and Breeding History

FG R48A138 is a synthetic variety with 55 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation

FG R48A138 is adapted to the North Central and East Central regions. This variety has been tested in Iowa, Pennsylvania and Wisconsin and is intended for use in the North Central and East Central regions.

Agronomic and Botanical Characteristics

FG R48A138 is Moderately Fall Dormant similar to FD4 check. Test variety is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 97% purple, 2% variegated and 1% yellow with a trace of cream and white. This variety has high multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

FG R48A138 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R48A138 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Aphanomyces root rot (Race 2) and stem nematode; with resistance to pea aphid and moderate resistance to spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R48H408 (Exp)

Origin and Breeding History
FG R48H408 is a synthetic variety with 58 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI PLH resistant breeding lines for glyphosate tolerance, forage yield, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG R48H408 is adapted to the North Central and East Central regions. This variety has been tested in Iowa, Pennsylvania and Wisconsin and is intended for use in the North Central and East Central regions.

Agronomic and Botanical Characteristics
FG R48H408 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 86% purple, 12% variegated and 2% yellow with a trace of cream and white.

FG R48H408 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R48H408 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 pea aphid and moderate resistance to stem nematode and spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R48M137 (Exp)

Origin and Breeding History
FG R48M137 is a synthetic variety with 98 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG R48M137 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Iowa, Washington, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG R48M137 is Fall Dormant similar to FD3 check. Test variety is Extremely Winterhardy, similar to WS1 check. Flower Color (Syn2) is 95% purple, 2% variegated, 2% yellow, 1% cream with a trace of white. This variety has high multifoliolate leaf expression.

FG R48M137 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R48M137 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and pea aphid; with resistance to spotted alfalfa aphid and moderate resistance to stem nematode. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R48M151 (Exp)

Origin and Breeding History
FG R48M151 is a synthetic variety with 80 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI Kansas-derived breeding lines for glyphosate tolerance, forage yield, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation
FG R48M151 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Iowa, Washington, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG R48M151 is Moderately Fall Dormant similar to FD5 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 98% purple, 2% variegated with a trace of white, cream and yellow. This variety has moderate multifoliolate leaf expression.

FG R48M151 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R48M151 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and pea aphid; with resistance to stem nematode and moderate resistance to spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R48W224 (Exp)

Origin and Breeding History

FG R48W224 is a synthetic variety with 107 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD5 checks. Flower color (Syn2) is 97% purple and 3% variegated with a trace of cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R48W224 has moderate multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), Verticilium wilt and stem nematode; with resistance to pea aphid and spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R56Bx214 (Exp)

Origin and Breeding History

FG R56Bx214 is a synthetic variety with 37 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD4 checks. Flower color (Syn2) is 95% purple, 2% variegated, 2% cream, 1% white with a trace of yellow. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R56Bx214 has moderate multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to anthracnose (Race 1), Phytophthora root rot, Aphanomyces root rot (Race 1), pea aphid, and, stem nematode: with resistance bacterial wilt, Fusarium wilt, Verticillium wilt, and spotted alfalfa aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57A136 (Exp)

Origin and Breeding History
FG R57A136 is a synthetic variety with 90 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 rot nematode, and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation
FG R57A136 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
FG R57A136 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 97% purple, 2% variegated and 1% yellow with a trace of cream and white. This variety has high multifoliolate leaf expression.

FG R57A136 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R57A136 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and Aphanomyces root rot (Race 2); 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57K138 (Exp)

Origin and Breeding History

FG R57K138 is a synthetic variety with 105 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI Kansas-derived breeding lines for glyphosate tolerance, forage yield, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R57K138 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R57K138 is Moderately Fall Dormant similar to FD5 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 94% purple, 3% variegated, 1% white and 2% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R57K138 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R57K138 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 and 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57K337 (Exp)

Origin and Breeding History

FG R57K337 is a synthetic variety with 75 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI Kansas-derived breeding lines for glyphosate tolerance, forage yield, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R57K337 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R57K337 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 92% purple, 5% variegated, 1% white and 2% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R57K337 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R57K337 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 and 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57M129 (Exp)

Origin and Breeding History

FG R57M129 is a synthetic variety with 48 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, 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 rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

FG R57M129 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Pennsylvania, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics

FG R57M129 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 95% purple, 3% variegated, 1% white and 1% yellow with a trace of cream. This variety has high multifoliolate leaf expression.

FG R57M129 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R57M129 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and pea aphid; with resistance to spotted alfalfa aphid and stem nematode. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57OK216 (Exp)

Origin and Breeding History

FG R57OK216 is a synthetic variety with 15 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD5 checks. Flower color (Syn2) is 89% purple 10% variegated, 1% yellow and trace of cream and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R57OK216 has moderate multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), pea aphid, spotted alfalfa aphid and stem nematode. Reaction to Verticilium wilt, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57OK217 (Exp)

Origin and Breeding History

FG R57OK217 is a synthetic variety with 15 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD5 checks. Flower color (Syn2) is 87% purple 10% variegated 2% yellow, 1% cream and trace of white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R57OK217 has high multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), pea aphid and stem nematode. Reaction to Verticilium wilt, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R57W213 (Exp)

Origin and Breeding History

FG R57W213 is a synthetic variety with 18 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2007.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Moderately Fall Dormant similar to FD5 checks. Flower color (Syn2) is 90% purple 3% variegated, 4% cream, 1% yellow and 2% white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. FG R57W213 has high multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1) and stem nematode; with resistance to Verticilium wilt and pea aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R58Hg236 (Exp)

Origin and Breeding History
FG R58Hg236 is a synthetic variety with 37 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2008.

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

Agronomic and Botanical Characteristics
Test variety is Moderately Fall Dormant similar to FD4 checks. Flower color (Syn2) is 92% purple, 2% variegated, 2% cream, 2% yellow and 2% white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R58Hg236 has moderate multifoliolate leaf expression.

This variety has high resistance to anthracnose (Race 1), Fusarium wilt, Phytophthora root rot, Verticilium wilt, spotted alfalfa aphid and stem nematode; with resistance to bacterial wilt and Aphanomyces root rot (race 1). Reaction to pea 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R65BD279 (Exp)

Origin and Breeding History

FG R65BD279 is a synthetic variety with 56 parent plants developed by Forage Genetics. Parent plants contained both commercial Roundup Ready events (dihomogenic) and were selected from F1 progeny from a cross between two populations previously selected for glyphosate tolerance, 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 and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2005.

Areas of Probable Adaptation

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

Agronomic and Botanical Characteristics

Test variety is Non-Dormant similar to FD7 checks. Flower color (Syn2) is 100% purple, with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. R65BD279 has moderate multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to anthracnose (Race 1), Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, and stem nematode: with resistance to bacterial wilt, Verticillium wilt, and root knot nematode (Northern *M. Hapla*). 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R66Bx311 (Exp)

Origin and Breeding History
FG R66Bx311 is a synthetic variety with 120 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

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

Agronomic and Botanical Characteristics
Test variety has fall dormancy similar to FD6 checks. Flower color (Syn2) is 99% purple, 1% variegated, with a trace of cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. FG R66Bx311 has moderate multifoliolate leaf expression and exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to anthracnose (Race 1), Fusarium wilt, pea aphid, spotted alfalfa aphid, and stem nematode: with resistance bacterial wilt, Verticilium wilt, and Phytophthora root rot. Reaction to Aphanomyces root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R96Bx301 (Exp)

Origin and Breeding History

FG R96Bx301 is a synthetic variety with 73 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas 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 region.

Agronomic and Botanical Characteristics

Test variety is Very Non-Dormant similar to FD9 checks. Flower color (Syn2) is 100% purple with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene.

This variety has high resistance to Phytophthora root rot, spotted alfalfa aphid, and pea aphid; with resistance to Fusarium wilt, Verticillium wilt and stem nematode; moderate resistance to bacterial wilt; and low resistance to anthracnose (Race 1). Reaction to Aphanomyces root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R96Bx304 (Exp)

Origin and Breeding History
FG R96Bx304 is a synthetic variety with 78 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas 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 region.

Agronomic and Botanical Characteristics
Test variety is Very Non-Dormant similar to FD9 checks. Flower color (Syn2) is 100% purple with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene. Test variety exhibits salt tolerance in germinating seeds similar to the tolerant check.

This variety has high resistance to Phytophthora root rot, spotted alfalfa aphid, and pea aphid; with resistance to Fusarium wilt, Verticillium wilt and stem nematode; moderate resistance to anthracnose (Race 1) and bacterial wilt. Reaction to Aphanomyces root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

FG R96Bx308 (Exp)

Origin and Breeding History

FG R96Bx308 is a synthetic variety with 8 parent plants developed by Forage Genetics. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Syn1 seed was harvested in total on all parents and bulked to form breeder seed in 2006.

Areas 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 region.

Agronomic and Botanical Characteristics

Test variety is Very Non-Dormant similar to FD9 checks. Flower color (Syn2) is 100% purple with a trace of variegated, cream, yellow and white. Test variety is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the cp4-epsps transgene.

This variety has high resistance to Phytophthora root rot, spotted alfalfa aphid and pea aphid; with resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt and stem nematode; and moderate resistance to Verticillium wilt. Reaction to Aphanomyces root rot, 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety).

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be marketed in 2012.
Certified seed production acreage may be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Apr 03, 2012

Cold Green

Origin and Breeding History

Cold Green is an advanced generation synthetic cultivar derived from ecotypes collected around Daegu, Korea and subjected to four cycles of recurrent phenotypic selection for early flowering, vigorous growth, and seed yield. Breeder seed was produced in 2009.

Areas of Probable Adaptation

Cold Green has been tested in Seongju, Sacheon, and Sungju Korea for dry matter yield and is adaptable to those areas. Cold Green is intended for use as forage, cover crop, and green manure applications in Korea.

Agronomic and Botanical Characteristics

Classification: **annual** Persistence: **N/A**

% Flowering Seeding Year: **100** Maturity: **3 days earlier than Haymaker Plus**

Flower Color: _____ % White **100** % Pink/Vio. _____ % Purple

Leaf width: **7.3 mm** Leaf Length : **2.8 cm**

Description of variants: **Narrower leaves with slightlydarker flowers**

Procedures for Maintaining Seed Stock

Cold Green will have the following generational scheme: Breeder (1 year), Foundation (1), Registered (1), and Certified (1). Breeder seed is maintained by the originating breeder in Daegu, Korea and by Oregro Seeds, Inc. of Albany, OR, USA. Oregro is responsible for seedstock production. Breeder seed of Cold Green was declared from Syn-2 generation in May of 2009.

Certified Seed Availability and Publication of Certified Seed Production

If accepted by AOSCA, certified seed will be available in 2012. Acreage reports of certified production may not be released by AOSCA or related agencies.

PVP Information

Plant Breeders Rights have been given for Cold Green by the Korean Ministry of Agriculture.

Date this application was submitted: Nov 28, 2011

Date recommended by the NVRB: Feb 02, 2012

05N16PY

Origin and Breeding History

05N16PY (experimental names: 05N16PY and N05PY43) is a synthetic cultivar with 128 parent plants selected by Pioneer Hi-Bred, all screened phenotypically for resistance to one or more of the following: bacterial wilt, Fusarium wilt, Verticillium wilt, Aphanomyces root rot race 1 and race 2, stem nematode, Phytophthora root, and spotted alfalfa aphid. Parent plants were also selected based on performance for early spring vigor, forage growth, fall dormancy, and resistance to lodging. Germplasm sources for 05N16PY trace to two elite Pioneer experimental lines. Breeder seed (Syn 2) was first produced in 2005.

Areas of Probable Adaptation

05N16PY 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 Minnesota, Wisconsin, and Washington, 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 and Botanical Characteristics

05N16PY is Moderately Dormant, similar to FD4 check. Flower color (Syn2) is 99% purple and 1% white. 05N16PY is highly resistant to A*nthracnose* (Race 1), *Aphanomyces* root rot (Race 1), *Verticillium* wilt, *Phytophthora* root rot, stem nematode, pea aphid, spotted alfalfa aphid and root knot nematode (*hapla*) ; with resistance to bacterial wilt, *Fusarium* wilt and Moderately resistant to *Aphanomyces* root rot (Race 2) 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 foundation 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed may be marketed in 2012.
Certified seed production acreage may not be published by AOSCA and/or member agencies.

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.

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Feb 02, 2012

07W01CZ

Origin and Breeding History

07W01CZ is a synthetic variety with 11 parent genotypes. Parent genotypes were selected by Pioneer Hi-Bred from Pioneer experimentals for forage yield, persistence and or resistance to one or more of the following pests: potato leafhopper, bacterial wilt, *Fusarium* wilt, *Verticillium wilt*, anthracnose (Race 1), *Phytophthora* root rot, and *Aphanomyces* root rot (Race 1 & 2). Parent genotypes were identified using a combination of genotypic and phenotypic selection in nursery and agronomic tests. Breeder seed (Syn1) was produced in the greenhouse the winter of 2006 and under cage in Connell WA in 2007 by crossing the 11 genotypes replicated in a modified polycross design, combining seed from each individual genotype forming the 11 components. Seed was bulked equally by component to form the Syn1 seed.

Areas of Probable Adaptation

07W01CZ is adapted to the North Central and East Central regions of the US. This variety has been tested in Illinois, Iowa and Wisconsin, and is intended for use in the North Central, East Central, Winterhardy Intermountain and the Great Plains regions of the US and Canada

Agronomic and Botanical Characteristics

07W01CZ is Moderately Dormant, similar to FD5 check. Flower color (Syn2) is 94% purple, 1% cream, 4% variegated and 1% white with a trace of yellow.

07W01CZ is highly resistant to anthracnose (Race 1), *Aphanomyces* root rot (Race 1 and 2), bacterial wilt, *Verticillium* wilt, *Fusarium* wilt, spotted alfalfa aphid, *Phytophthora* root rot, and potato leafhopper; resistant to pea aphid with moderate resistance to stem nematode. Reaction to blue alfalfa aphid and root knot nematode (*M. hapla*) 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 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. Breeder seed was produced in the greenhouse in 2006. 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed may be marketed in 2013
Certified seed production acreage may not be published by AOSCA and/or member agencies.

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.

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Feb 02, 2012

09N12CY

Origin and Breeding History

09N12CY (experimental name: 09N12CY and N08CY191) is an intercross of 22 genotypes selected by Pioneer Hi-Bred International from Pioneer experimentals for forage yield, persistence, forage quality, standability and or resistance to one or more of the following pests: bacterial wilt, *Fusarium* wilt, *Verticillium wilt*, anthracnose (Race 1), *Phytophthora* root rot, *Aphanomyces* root rot (Race 1 & 2), and stem nematode. Parent genotypes were identified using phenotypic recurrent selection in field selection nurseries for standability (lodging tolerance) forage quality, increased pectin, persistence, agronomic characteristics, and improved forage yield. Breeder seed (Syn1) was produced in the greenhouse the winter of 2008-09 in Connell WA by crossing the 22 genotypes replicated in a modified polycross design, combining seed from each individual genotype forming the 22 components. Seed was bulked equally by component to form the Syn1 seed.

Areas of Probable Adaptation

09N12CY is adapted to the North Central, East Central, & Moderately Winterhardy Intermountain regions of the US. This variety has been tested in Wisconsin, Washington, Minnesota, Michigan and Pennsylvania and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain, Winterhardy Intermountain and Great Plains regions of the US and Canada.

Agronomic and Botanical Characteristics

09N12CY is Moderately Dormant, similar to FD5 check. Flower color (Syn 2) is 94% purple, 3% cream, 3% variegated with a trace of yellow and white.

09N12CY is highly resistant to *Aphanomyces* root rot (Race 1), bacterial wilt, *Verticillium* wilt, *Fusarium* wilt, and *Phytophthora* root rot; with resistance to A*nthracnose* (Race 1), pea aphid, *Aphanomyces* root rot (Race 2), stem nematode, lodging and spotted alfalfa aphid. Reaction to blue alfalfa aphid and root-knot nematode (*M. hapla*) has not been tested.

Procedures for Maintaining Seed Stock

Seed increase is on a limited generation basis with one generation of breeder, three generations of foundation and three generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2, Syn 3 or Syn 4) and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Breeder seed was produced in the winter of 2008-09. 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed may be marketed in 2013
Certified seed production acreage may not be published by AOSCA and/or member agencies.

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.

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Feb 02, 2012

54QR04

Origin and Breeding History
54QR04 is a synthetic variety with 82 parent plants. Parent plants contain the commercial Roundup Ready event J101 and were selected from FGI breeding lines for glyphosate tolerance, forage yield, persistence and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose, Phytophthora root rot, stem nematode, northern root rot nematode and Aphanomyces root rot (Race 1 and Race 2). Genotypic selection was used to identify the parent plants. Breeder seed was first produced in the winter of 2005-2006.

Areas of Probable Adaptation
54QR04 is adapted to the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions. This variety has been tested in Washington, Indiana, Idaho and Wisconsin and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain and Winterhardy Intermountain regions.

Agronomic and Botanical Characteristics
54QR04 is Moderately Fall Dormant similar to FD4 check. Test variety is Very Winterhardy, similar to WS2 check. Flower Color (Syn2) is 96% purple, 3% variegated, 1% cream with a trace of white and yellow. This variety has high multifoliolate leaf expression.

54QR04 is "Roundup Ready®" expressing tolerance to Roundup® herbicide conferred by the *cp4-epsps* transgene. 54QR04 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and spotted alfalfa aphid; with resistance to stem nematode and pea aphid. Reaction to 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 each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. 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. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety). Breeder seed was first produced in the winter of 2005-2006.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed may be marketed in 2012.
Certified seed production acreage may not be published by AOSCA and/or member agencies.

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.

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Feb 02, 2012

55Q27

Origin and Breeding History
55Q27 (experimental names: 09N07SX and N08SX186) is an intercross of 100 plants selected by Pioneer Hi-Bred International from Pioneer experimentals for forage yield, persistence, forage quality, and or resistance to one or more of the following pests: bacterial wilt, *Fusarium* wilt, *Verticillium wilt*, anthracnose (Race 1), *Phytophthora* root rot, *Aphanomyces* root rot (Race 1 & 2), and stem nematode. Parent clones were identified using phenotypic recurrent selection in field selection nurseries for standability (lodging tolerance), forage quality, increased pectin, persistence, agronomic characteristics, and improved forage yield. Breeder seed was first produced in the winter of 2008-09.

Areas of Probable Adaptation
55Q27 is adapted to the North Central, East Central, & Moderately Winterhardy Intermountain regions of the US and Canada. This variety has been tested in Wisconsin, Washington, & Ontario Canada and is intended for use in the North Central, East Central, Moderately Winterhardy Intermountain, Winterhardy Intermountain and Great Plains regions of the US and Canada.

Agronomic and Botanical Characteristics
55Q27 is Moderately Dormant, similar to FD5 check. Flower color (Syn 2) is 100% purple with a trace of variegated, yellow, cream and white.

55Q27 is highly resistant to A*nthracnose* (Race 1), *Aphanomyces* root rot (Race 1), bacterial wilt, *Verticillium* wilt, *Fusarium* wilt, stem nematode and *Phytophthora* root rot; with resistance to pea aphid, *Aphanomyces* root rot (Race 2) and spotted alfalfa aphid. Reaction to blue alfalfa aphid and root-knot nematode (*M. hapla*) has not been tested.

Procedures for Maintaining Seed Stock
Seed increase is on a limited generation basis with one generation of breeder, three generations of foundation and three generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2, Syn 3 or Syn 4) and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Breeder seed was first produced in the winter of 2008-09. 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed may be marketed in 2013.
Certified seed production acreage may not be published by AOSCA and/or member agencies.

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Jan 10, 2012

55V50
(Amended – Error in Breeding History in Original Application)

Breeding History
55V50 (experimental designation – 07W06PX, W07PX61) is a population intercross of 96 parent plants selected by Pioneer Hi-Bred International from Pioneer experimentals. Parent plants trace to a Pioneer experimental with winterhardiness, forage yield, persistence, and resistance to Aphanomyces root rot (Race 1 and 2) and were selected phenotypically for one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, and Aphanomyces root rot (Race 1 and 2), and field performance . Breeder seed (Syn 1) was first produced 2006.

Area of Probable Adaptation
55V50 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 Minnesota, Wisconsin, Ohio, 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 and Botanical Characteristics
55V50 is Moderately Dormant, similar to FD5 check. Flower color (Syn2) is 98% purple, 1% cream and 1% white with a trace of variegated and yellow.

55V50 is highly resistant to anthracnose (Race 1), bacterial wilt, *Aphanomyces* root rot (Race 1), *Aphanomyces* root rot (Race 2), *Verticillium* wilt, root-knot nematode (*M. hapla*) and *Phytophthora* root rot; with resistance to *Fusarium* wilt, stem nematode, pea aphid, and spotted alfalfa 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, three generations of foundation and three generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2, Syn 3 or Syn 4) and certified (Syn 3, Syn 4 or Syn 5) classes will be recognized. Breeder seed was first produced in Arlington WI 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 6 years, respectively.

Date Certified Seed to be First Offered for Sale
Certified seed may be marketed in 2011. Certified seed production acreage may not be published by AOSCA and/or member agencies.

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 55V50

Experimental Designation(s) 07W06PX, W07PX61

Date NA&MLVRB first accepted this variety January 2010

Date(s) previous amendments were accepted January 2011

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Jan 10, 2012

SW 4328

Origin and Breeding History
This synthetic variety, SW 4328, was developed by S&W Seed Company, Bob Sheesley, and Tim Jacobsen, using the outdoor cages crossing method with both honey bees and leaf cutter bees from selections from three parent lines. The selection criteria used in the development of this variety include forage yield, resistance to pea aphid, Phytophthora root rot, and Fusarium wilt.

Areas of Probable Adaptation
SW 4328 is adapted to the Intermountain region. This variety has been tested in North Eastern California and Eastern Washington and is intended for use in the Intermountain region.

Agronomic and Botanical Characteristics
This variety is moderately winter hardy similar to FD 5 check. Flower color (Syn 2) is 98% purple and 2% variegated. SW 4328 has high resistance to pea aphid, Phytophthora root rot, anthracnose (Race 1), and Fusarium wilt: with resistance to spotted alfalfa aphid, bacterial wilt, stem nematode, Southern root knot nematode (M. incognita), and Verticillium wilt. Reaction to Blue Aphid and Aphanomyces root rot has not been tested.

Procedures for Maintaining Seed Stock
Breeder seed was produced in 2003. S & W Seed Company will maintain sufficient breeder seed (Syn 2) in cold storage in the applicant's research facility. 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.

Certified Seed Availability and Publication of Certified Seed Production
Certified seed will be marketed in 2012. Certified seed acreage may not be published by AOSCA and member agencies.

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.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Feb 06, 2012

WITT

Origin and Breeding History

WITT a birdsfoot trefoil (*Lotus corniculatus* L.) variety is an eleven clone synthetic selected for third year persistence in competition with *Poa pratensis* (common bluegrass) and for plant yield, seed yield, and seed size. The eleven clones were selected from the University of Guelph, Guelph, Ontario germplasm lines RC3 Syn 3 (three clones), RC3sp Syn3 (two clones), and RC4 Syn 2 (six clones). These three Guelph germplasm lines were derived from the cultivar, Leo. RC4 Syn 2 was released in 1997 by the Department of Crop Science, University of Guelph, Guelph, Ontario as the cultivar, OAC Bright (Twamley, et al. 1997. Can. J. Plant Sci. 77:251-253). In 1979 plants representing each Guelph germplasm line and the cultivars Viking, Leo, Maryland 1, Maitland, Dawn, Carroll, Empire and Norcen were established in a replicated trial on the University of Wisconsin Agricultural Research Station at Arlington, Wisconsin. The experiment was over seeded with *Poa pratensis* and routinely harvested in 1979, 1980 and 1981. Data were collected in 1979, 1980 and 1981 on all plants for vigor, growth type, maturity, visual forage yield, and seed yield. Seed was harvested from 110 surviving plants of the Guelph germplasm in the fall of 1981. In 1982 a replicated progeny row test of the 110 selected plants was established. The eleven original 1979 established plants were then chosen on the basis of the progeny row data and the 1979, 1980 and 1981 data. 'WITT' has been tested in experimental trials as WITT, WITT-I, and WITT-II. In 1983 in Minnesota and Ashland, WI replicated seed increase of the eleven clones were planted. Syn 1 seed was harvested of these blocks in 1983 (Minnesota), 1984 (Ashland & Minnesota), and 1985 (Minnesota). A bulk of the Syn 1 seed sources was planted in 2011 in a five acre field in Manitoba, Canada to produce Syn 2 breeder seed.

Areas of Probable Adaptation

Cool humid regions of United States.

Agronomic and Botanical Characteristics

WITT is a birdsfoot trefoil (*Lotus corniculatus* L.) variety that is persistent in cool humid environment like Wisconsin with stands showing above 50% persistence 3 and 4 years after establishment. WITT has good forage yield and seed production. WITT is also a larger seeded variety which should aid stand establishment. WITT is an erect growing trefoil with yellow flowers with orange stripes and greenish stems with green leaves.

Procedures for Maintaining Seed Stock

Seed increase of WITT is on a limited generation basis with three generations of breeder seed class, one generation of foundation seed class, two generations of registered seed class, and three generations of certified seed class allowed. Syn 2 breeder seed will be produced in Manitoba, Canada in 2012 and 2013. Breeder (Syn1, Syn 2, or Syn3), foundation (Syn 3), registered (Syn 3 or Syn 4), and certified (Syn 3, Syn 4, or Syn 5) classes of seed will be recognized. Production of Syn 2 or Syn 3 breeder seed requires consent of the breeder. Stands of breeder seed are limited to 2 years, foundation and registered seed limited to 4 years, and certified seed to 5 years. Sufficient breeder seed produced in Manitoba, Canada will be maintained by the US Dairy Forage Research Center in Madison, WI for the life of the variety.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of WITT will be available in 2014.

PVP Information

A PVP application was submitted 5/7/2007 for WITT (#200700300) and the application is currently pending. Title V certification will not be sought for WITT.

Date this application was submitted: Nov 30, 2011

Date recommended by the NVRB: Feb 14, 2012

WL 712
(Amended – Name Change)

1. The selection criteria used in the development of this variety was resistance to Phytophthora root rot.

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

3. Test variety is very non-dormant, similar to FDlO checks. Flower color (Syn2) is 100% purple with a trace of variegated, cream, yellow and white.

4. This variety has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid and spotted alfalfa aphid; resistance to blue alfalfa aphid and stem nematode; moderate resistance to anthracnose (Race I) and Verticilliurn wilt; and low resistance to bacterial wilt. Reaction to Aphanomyces root rot and root-knot nematode has not been tested.

5. 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 ofthe breeder. Breeder seed was produced near Nampa, Idaho in 1999. Sufficient foundation seed for the projected life of the variety will be maintained by Forage Genetics. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

6. Certified seed will be marketed in 2003.

7. No decision has been made concerning Plant Variety Protection Act

8. The information in this application may not be forwarded to the PVP office.

Variety Name WL 712

Experimental Designation(s) FG 10S916

Date NA&MLVRB first accepted this variety January 2003

Date(s) previous amendments were accepted

Date amendment submitted Oct 8, 2012

CW 202 (Exp) (Red Clover)

Origin and Breeding History

CW 202 is a synthetic variety with 124 parent plants.. Parent plants were selected from crosses between selections of various populations from a three-year old California yield trial. Yield trial source varieties were derived from various populations that were developed by phenotypic recurrent selection for winter hardiness, high leaf to stem ratio, vigor, forage yield and resistance to northern anthracnose, mosaic virus, and crown rot. Parentage of CW 202 traces to the following germplasm sources: Cinnamon (5.6%), Duration (8.1%), Formica (0.8%), Kuhn (2.4%), Marathon (2.4%), Merviot (6.5%), Milvus (2.4%), Red Baron (1.6%), Red Star (6.5%), Royal (5.6%), S.A. (3.2%), Starfire (6.5%), Temera (0.8%), CW 3001 (11.3%), CW 3003 (5.6%), CW 5048 (4.8%), CW 9503 (8.1%), CW 9803 (8.9%), and CW 9810 (8.9%). Breeder seed (Syn.1) was produced under open isolation near Woodland, California in 2002. Seed was bulk harvested from all parent plants.

Areas of Probable Adaptation

CW 202 is adapted to the North Central, East Central, and Moderately Winterhardy Intermountain areas of the U.S. and is intended for use in the North Central, East Central, Great Plains, Moderately Winterhardy Intermountain, Winterhardy Intermountain areas of the US and Canada. CW 202 has been tested in California, Kentucky, and Wisconsin

Agronomic and Botanical Characteristics

Classification: Multiple cut
Productive Persistence: Short lived perennial
Ploidy: Diploid
Flower Color: Trace% Red, 100% Medium Pink
% Flowering Seedling Year: 95%
% Leaf Marking at 50% Flowering: 51% marked; 49% unmarked
Stem Hairiness: 15% upward; 78% downward or right angle; and 7% glabrous.

Description of Variants: None Observed

Additional description and/or information about physiology, pest reaction, and other varietal attributes:

CW 202 has high resistance to anthracnose (race 1), Aphanomyces root rot (race 1), bacterial wilt, and Phytophthora root rot; with resistance to: Aphanomyces (race 2) and Fusarium wilt.

Procedures for Maintaining Seed Stock

Seed increase of CW 202 is on a limited generation basis with two generations of the breeder, foundation, registered, and certified seed classes. Breeder (Syn.1 or Syn.2), foundation (Syn.2 or Syn.3), and registered (Syn.3 or Syn.4), and certified (Syn. 4 or Syn 5) classes will be recognized. Production of Syn.2 breeder or Syn.3 foundation or Syn.4 Registered seed requires consent of the breeder. Breeder seed was produced under open 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, registered and certified seed fields are limited to 3 years each.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of CW 202 will be available in 2012.

PVP Information

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

Date this application was submitted: Dec 01, 2011

Date recommended by the NVRB: Jan 10, 2012

RC0302 (Exp) (Red Clover)

Origin and Breeding History

RC0302 medium red clover was developed using phenotypic recurrent selection. A total of 111 plants were selected from a 3-year old yield trial in Kentucky from the following sources: Royal Red, FSG 9601, FP-345, Plus II, LS 9703, and one FFR breeding line. These plants were intercrossed, and the resulting population screened two cycles for resistance to Mycoleptodiscus root rot in the greenhouse at Buck Creek, IN. Approximately 400 resistant plants from the second cycle of screening were placed in an isolated crossing block at Touchet, WA and bulk-harvested as breeder seed (syn-1) in 2006.

Areas of Probable Adaptation

RC0302 is adapted to the east central United States, and is intended for use in that area. It has been tested in Indiana, Kentucky, Pennsylvania, Tennessee, and Virginia.

Agronomic and Botanical Characteristics

Classification: double cut (medium)
Productive Persistence: perennial
Ploidy: diploid
Flower color: 11% red, 35% DP, 35% MP, 19% LP
% Flowering Seeding Year: 68
% Leaf Marking at 50% Flowering: 72
Stem Hairiness: 88%, with 85% perpendicular or pointing down, 3% pointing up

Description of Variants: 12% of plant without stem hairs, 28% without leaf marks.

Additional description: RC0302 is highly resistant to northern anthracnose, and resistant to southern anthracnose and powdery mildew.

Procedures for Maintaining Seed Stock

Seed increase of RC0302 is limited to two generations each of breeder (Syn-1 or Syn-2), foundation (Syn-2 or Syn-3), and certified (Syn-3 or Syn-4) classes. Breeder seed was produced in 2006 (Syn-1) and 2011 (Syn-2) sufficient for the life of the variety, and will be maintained 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of RC0302 will be available in 2013. Certified seed production acreage may not be published by AOSCA and member agencies.

PVP Information

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Jan 10, 2012

RC0303G (Exp) (Red Clover)

Origin and Breeding History

RC0303G medium red clover was developed using phenotypic recurrent selection. A total of 56 plants were selected from a 2-year old beef cattle grazing trial in Kentucky from the following sources: Rocket and one FFR breeding line. These plants were intercrossed, and the resulting population screened two cycles for resistance to Mycoleptodiscus root rot in the greenhouse at Buck Creek, IN. Approximately 400 resistant plants from the second cycle of screening were placed in an isolated crossing block at Touchet, WA and bulk-harvested as breeder seed (syn-1) in 2006.

Areas of Probable Adaptation

RC0303G is adapted to the east central United States, and is intended for use in that area. It has been tested in Indiana, Kentucky, Pennsylvania, Tennessee, and Virginia.

Agronomic and Botanical Characteristics

Classification: double cut (medium)
Productive Persistence: perennial
Ploidy: diploid
Flower color: 3% red, 19% DP, 48% MP, 30% LP
% Flowering Seeding Year: 64
% Leaf Marking at 50% Flowering: 84
Stem Hairiness: 95%, with 88% perpendicular or pointing down, 7% pointing up

Description of Variants: 5% of plants without stem hairs, 16% without leaf marks.

Additional description: RC0303G is highly resistant to northern and southern anthracnose, and resistant to powdery mildew.

Procedures for Maintaining Seed Stock

Seed increase of RC0303G is limited to two generations each of breeder (Syn-1 or Syn-2), foundation (Syn-2 or Syn-3), and certified (Syn-3 or Syn-4) classes. Breeder seed was produced in 2006 (Syn-1) and 2010 (Syn-2) sufficient for the life of the variety, and will be maintained 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of RC0303G will be available in 2013. Certified seed production acreage may not be published by AOSCA and member agencies.

PVP Information

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Jan 10, 2012

RC0401 (Exp) (Red Clover)

Origin and Breeding History

RC0401 medium red clover was developed using phenotypic recurrent selection. A total of 104 plants were selected from a 2-year old yield trial in Tennessee from the following sources: FSG 9601, FP-345, LS 9703, Rocket, and 4 FFR breeding line. These plants were intercrossed, and the resulting population screened two cycles for resistance to Mycoleptodiscus root rot in the greenhouse at Buck Creek, IN. Approximately 400 resistant plants from the second cycle of screening were placed in an isolated crossing block at Touchet, WA and bulk-harvested as breeder seed (syn-1) in 2007.

Areas of Probable Adaptation

RC0401 is adapted to the east central United States, and is intended for use in that area. It has been tested in Indiana, Kentucky, Tennessee, and Virginia.

Agronomic and Botanical Characteristics

Classification: double cut (medium)
Productive Persistence: perennial
Ploidy: diploid
Flower color: 9% red, 38% DP, 38% MP, 15% LP
% Flowering Seeding Year: 64
% Leaf Marking at 50% Flowering: 91
Stem Hairiness: 98% perpendicular or pointing down

Description of Variants: 2% of plant without stem hairs, 9% without leaf marks.

Additional description: RC0401 is highly resistant to northern and southern anthracnose, and resistant to powdery mildew.

Procedures for Maintaining Seed Stock

Seed increase of RC0401 is limited to two generations each of breeder (Syn-1 or Syn-2), foundation (Syn-2 or Syn-3), and certified (Syn-3 or Syn-4) classes. Breeder seed was produced in 2007 (Syn-1) and 2010 (Syn-2) sufficient for the life of the variety, and will be maintained 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.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed of RC0401 will be available in 2013. Certified seed production acreage may not be published by AOSCA and member agencies.

PVP Information

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

Date this application was submitted: Nov 23, 2011

Date recommended by the NVRB: Feb 02, 2012

Rustler (Red Clover)

Origin and Breeding History

Rustler is a variety selected from 23 plants collected in Louisiana, Texas, Alabama, and Oklahoma and the cultivars Solid and Red Gold. Subjected to three cycles of intense phenotypic selection, selection criteria focuses on plant height, number of stems, high leaf to stem ratio, number of flowers, and freedom from foliar disease. Breeder seed was first produced in 2005 under the experimental designation M101-RC1.

Areas of Probable Adaptation

Rustler was tested by the University of Kentucky for three years at two different locations. It is adapted to Kentucky conditions.

Agronomic and Botanical Characteristics

Classification: biennial
Productive Persistence: 2 years
Ploidy: diploid
Flower Color: red/purple
% Flowering Seedling Year: 95
% Leaf Marking at 50% Flowering: 97
Stem Hairiness: many

Description of Variants: None observed.

Procedures for Maintaining Seed Stock

Adequate quantities of breeder seed is maintained in controlled, long term storage by Oregro seeds, Inc., Albany, OR.

Certified Seed Availability and Publication of Certified Seed Production

If accepted, certified seed will be available in 2012. Production acreage data will be kept confidential.

PVP Information

PVP will not be applied for. Permission is granted to share this information with the PVP office.

Date this application was submitted: Nov 28, 2011

Date recommended by the NVRB: Apr 02, 2012

B-7.1499 (Exp) (White Clover)

Origin and Breeding History

Experimental variety B-7.1499 is a synthetic variety. In spring 2006, 14 plants from each of four local sites, 4 plants from one local site, and 3 plants from one local site were planted in a two replication isolated polycross nursery in Lebanon, OR, to total 63 maternal lines. Seed was harvested in Fall 2006, and a synthetic bulk was made with each maternal parent. In spring 2007, an approximate 1200 plant nursery was established. Any plants with extremely small leaves, poor vigor, or poor flower head production were eliminated with approximately 1000 plants remaining for seed harvest of breeders seed. Seed was bulked in Fall 2007 and labeled as experimental variety B-7.1499.

Areas of Probable Adaptation

B-7.1499 has been trialed at the University of Kentucky and in Lebanon, OR. Results indicate that B-7.1499 is adapted for use in the Pacific NW and the transition zone in the US, and its intended use is for pasture and hay production in those regions.

Agronomic and Botanical Characteristics

Classification: Small leafed Persistence: biennial to weak perennial

% flowering seeding year: 100% Leaf marking at 50% flower: 100 % marked

Flower color: 90 % white 10 % pinkish _____ % pink or darker

Stolon density: 8.8 Number of stolons intersecting within one meter

Description of variants:

Additional description and/or information about physiology, pest reaction, and other varietal attributes:

Procedures for Maintaining Seed Stock

Adequate breeder seed for regeneration of the variety is kept under cold storage by Blue Moon Farms to maintain the variety. Breeder seed may be used to produce Foundation, Registered, and Certified generations. Limitations for generations include two years for Foundation, two years for Registered, and five years for Certified. Additional years may be approved by the breeder or their designee.

Certified Seed Availability and Publication of Certified Seed Production

It is requested that certified acreage not be published.

PVP information

It is undecided if PVP will be applied for. Information on this variety is not available to the PVP office, unless PVP is applied for.

Date this application was submitted: Nov 29, 2011

Date recommended by the NVRB: Jan 26, 2012