Varietal Publication No. 179

A REPORT OF THE

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES

VARIETY REVIEW BOARD

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

May 1999

NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES VARIETY REVIEW BOARD

Association of Official Seed Certifying Agencies
May 1999

The Association of Official Seed Certifying Agencies National Alfalfa and Miscellaneous Legumes Variety Review Board (NA&MLVRB) reviewed the following varieties and recommend that the seed of these varieties can be certified, providing the production meets all standards of the Certifying Agency of the state in which the seed is grown.

All variety information, including descriptions, claims, and research data to support the claims was supplied to the NA&MLVRB by the applicants. The NA&MLVRB makes judgments regarding recommendation of varieties for certification based on the data supplied. Beyond this, the NA&MLVRB 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 NA&MLVRB can be obtained from:

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Respectively submitted,

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NATIONAL ALFALFA AND MISCELLANEOUS LEGUMES
VARIETY REVIEW BOARD
Applications Recommended for Certification 1999

	Application Number	Rep	Variety Name	Experimental Designation(s)	Type New	Amend
ALFALFA						
W-L Research	1	Peterson	Platinum	C310	N	
W-L Research	2	Peterson	GH750	C230	N	
W-L Research	3	Peterson	N/A	92-296	N	
W-L Research	4	Peterson	Passport	W309	N	
W-L Research	5	Peterson	N/A	C232	N	
W-L Research	6	Peterson	N/A	C304	N	
W-L Research	7	Peterson	N/A	C252	N	
W-L Research	9	Peterson	N/A	W214	N	
W-L Research	10	Peterson	N/A	C227	N	
W-L Research	11	Hintz	N/A	W316	N	
W-L Research	12	Peterson	ABT 400 SCL	C231	N	
W-L Research	128	Peterson	WL 232 HQ	C131		A
W-L Research	129	Peterson	FQ 314	C134		A
W-L Research	130	Hintz	WL 711 WF	C290		A
W-L Research	131	Peterson	GH757	W215		A
W-L Research	132	Peterson	WL 525 HQ	90-296		A
Great Plains Res. Co	13	Busbice	Cimarron SR		N	
Cal/West Seeds	15	Reich	Cyclone	CW 3347	N	
Cal/West Seeds	16	Reich		CW 4223	N	
Cal/West Seeds	17	Reich		CW 4338	N	
Cal/West Seeds	18	Reich		CW 4403	N	
Cal/West Seeds	19	Reich		CW 4409	N	
Cal/West Seeds	20	Reich	Sprint	CW 4429	N	
Cal/West Seeds	21	Reich	Pointer	CW 4437	N	
Cal/West Seeds	22	Reich	FQ 315	CW 5302	N	
Cal/West Seeds	23	Reich		CW 5428	N	
Cal/West Seeds	29	Reich		CW 4696	N	
Cal/West Seeds	31	Reich		CW 4598	N	
Cal/West Seeds	32	Reich		CW 4791	N	
Cal/West Seeds	33	Reich		CW 4887	N	
Cal/West Seeds	34	Reich		CW 4880	N	
Cal/West Seeds	35	Reich		CW 4888	N	
Cal/West Seeds	36	Reich		CW 59128	N	
Cal/West Seeds	37	Reich		CW 69120	N	
Cal/West Seeds	121	Reich		C/W 1361		A
Cal/West Seeds	122	Reich		CW 2443		A
Cal/West Seeds	123	Reich		CW 3512		A

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ALFALFA continued						
Cal/West Seeds	124	Reich		CW 4308		A
Cal/West Seeds	125	Reich		CW 4335		A
Cal/West Seeds	126	Reich		CW 5426		A
Cal/West Seeds	127	Reich		CW 3988		A
RED CLOVER						
Cal/West Seeds	14	Reich	Impact	CW 9097	N	
Cal/West Seeds	24	Reich	StarFire	CW 3002	N	
Cal/West Seeds	25	Reich		CW 9504	N	
Cal/West Seeds	26	Reich		CW 9505	N	
Cal/West Seeds	27	Reich		CW 9506	N	
WHITE CLOVER						
Cal/West Seeds	28	Reich		CW 190	N	
Cal/West Seeds	30	Reich		CW 9300	N	
ALFALFA						
Lohse Mill, Inc.	38	Lohse	Tristar	H-172.ARS 72	N	
Lohse Mill, Inc.	115	Lohse	Falcon	ND-143		A
Lohse Mill, Inc.	116	Lohse	LM 455	IH-101,GT55,NP1455		A
Lohse Mill, Inc.	117	Lohse	LM 456	IH-171		A
Lohse Mill, Inc.	118	Lohse	LM 459	IH-175		A
Lohse Mill, Inc.	119	Lohse	Achiever	90 MCI		A
Lohse Mill, Inc.	120	Lohse	WestStar	88 SWR		A
Forage Genetics	39	McCaslin	DK131HG	FG 4R25	N	
Forage Genetics	40	McCaslin	FQ302HR	FG 3R20	N	
Forage Genetics	41	McCaslin	6410	FG 4G70	N	
Forage Genetics	42	McCaslin		FG 4R37	N	
Forage Genetics	43	McCaslin	DK134	FG 3G51	N	
Forage Genetics	44	McCaslin	Trailblazer 3.0	FG 4R38	N	
Forage Genetics	45	McCaslin	6310	FG 3R22	N	
Forage Genetics	46	McCaslin	Trump	FG 3L54	N	
Forage Genetics	47	McCaslin	Geneva	FG 4G75	N	
Forage Genetics	48	McCaslin		FG 3G56	N	
Forage Genetics	49	McCaslin	DK124	FG 3G39	N	
Forage Genetics	50	McCaslin	Multiplier II	FG 2B07	N	
Forage Genetics	51	McCaslin	Select	FG 3G107	N	
Forage Genetics	52	McCaslin		FG 3L115	N	

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ALFALFA continued						
Forage Genetics	53	McCaslin		FG 4G109	N	
Forage Genetics	54	McCaslin	Pinnacle	FG 3L171	N	
Forage Genetics	55	McCaslin		FG 4G65	N	
Forage Genetics	56	McCaslin	Rebound	FG 4G73	N	
Forage Genetics	57	McCaslin	Zaino	FG 9T97	N	
Forage Genetics	58	McCaslin	TMF 4355LH	FG 4R30	N	
Forage Genetics	91	McCaslin	Pristine	FG 4L68		A
Forage Genetics	92	McCaslin	Accord	FG 3B44		A
Forage Genetics	93	McCaslin	Extend	FG 3B05		A
Forage Genetics	94	McCaslin	DK180ML	FG 8L412		A
Forage Genetics	95	McCaslin	Reno	FG 3L104		A
Forage Genetics	96	McCaslin	NK Matrera 8	FG 8G521;FG Arg 96-9		A
Forage Genetics	97	McCaslin	Sendero	FG 6B175		A
Forage Genetics	98	McCaslin	Plumas	FG 3L102		A
Forage Genetics	99	McCaslin	DK140	FG 3L20		A
Forage Genetics	100	McCaslin	DK 143	FG 3B12		A
Forage Genetics	101	McCaslin	DK127	FG 3B37		A
Forage Genetics	102	McCaslin	DK 166	C/W2677;VS-957		A
Forage Genetics	103	McCaslin	8498	FG 3B18		A
Forage Genetics	104	McCaslin	NK Vaquera 9	FG 9G515;FG Arg 96-2		A
FFR Cooperative	60	Stratton		A9503	N	
RED CLOVER						
FFR Cooperative	59	Stratton		RC8902	N	
FFR Cooperative	61	Stratton	Royal Red	RC8702	N	
FFR Cooperative	112	Stratton	Rudolf	RC8501		A
ALFALFA						
ABI	62	Miller	Salado	ZS 9491	N	
ABI	63	Miller	AmeriLeaf 721	ZL 9677	N	
ABI	64	Moutray	AmeriGuard 301	ZH 9549	N	
ABI	66	Moutray		ZG 9544	N	
ABI	67	Moutray	Yielder	ZM 9537	N	
ABI	68	Moutray		ZC 9650	N	
ABI	69	Moutray	Interceptor	ZH 9548	N	
ABI	70	Moutray	Power Plant	ZM 9435	N	
ABI	72	Moutray	Dagger+EV	ZC 9651	N	
ABI	73	Moutray		ZG 9641	N	

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ALFALFA continued						
ABI	105	Moutray	XGrazer	ZG 9426		A
ABI	106	Moutray	GH 797	ABI 9144		A
ABI	107	Moutray	TMF 4464	ABI 9141		A
ABI	108	Moutray	Emperor	ZN 9541		A
ABI	109	Miller	Rodeo	ZG 9490, ABI 9299 GZ		A
ABI	110	Miller	Arriba	ABI 9161		A
ABI	111	Miller	Archer II	ZX 9352, ABI 9352		A
S & W Seed Co	74	Sheesley	SW 7410	SW 7410	N	
Dairyland Research Intl'	75	Velde	Magna 601		N	
Dairyland Research Intl'	76	Velde	Val Verde	DSS5106	N	
Dairyland Research Intl'	77	Velde		DS908	N	
Dairyland Research Intl'	78	Velde	Vision		N	
Dairyland Research Intl'	79	Velde	6420	DS9612	N	
Dairyland Research Intl'	80	Velde	AquaMate		N	
Dairyland Research Intl'	81	Velde	Cisco		N	
Dairyland Research Intl'	82	Velde	WinterCrown		N	
Dairyland Research Intl'	83	Velde	Forecast 3001	SMA9565, DS9565	N	
Dairyland Research Intl'	84	Velde	Arrowhead		N	
Dairyland Research Intl'	85	Velde		SMA9561, DS9561	N	
Dairyland Research Intl'	87	Velde	Forecast 1001	SMA9579, DS9579	N	
Dairyland Research Intl'	88	Velde		SMA9482, DS9482	N	
Dairyland Research Intl'	89	Velde	Pershing	DS482	N	
Dairyland Research Intl'	133	Velde	Mecca III	DS591		A
Dairyland Research Intl'	134	Velde		DS491		A
Dairyland Research Intl'	135	Velde	Magnum V	DS907		A
Dairyland Research Intl'	136	Velde	Ripin	DS9454		A
Dairyland Research Intl'	137	Velde		DS9410		A
Dairyland Research Intl'	138	Velde		DS9475		A
Dairyland Research Intl'	139	Velde		BPR374		A
Pioneer Hi-Bred Intl, Inc	90	Miller	54V54	X54V54, Y53V53	N	
Pioneer Hi-Bred Intl, Inc	113	Smith	54Q53	X54Q53		A
Pioneer Hi-Bred Intl, Inc	114	Miller	5347LH	XAM411		A

Platinum

1. Platinum is a 220-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality using near infrared reflectance spectroscopy. Parental germplasm traces to Multi-plier, ALPHA 2001, WL 252 HQ and WL 322 HQ. Approximate germplasm source contributions are M. facata – 15%; Ladak – 10%; M. varia – 25%; Turkistan – 21%; Flemish – 26%; and Chilean – 3%.

2. Platinum is adapted for use in the North Central, East Central and moderately winterhardy intermountain regions of the United States. Platinum has been yield tested in Pennsylvania, Washington and Wisconsin.

3. Flower color of Platinum at Syn 2 approximates 100% purple with a trace of variegated and cream. The fall dormancy of Platinum is similar to Legend (Class 4).

4. Platinum has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, pea aphid, Aphanomyces root rot (Race 1) and Aphanomyces root rot (Race 2); and resistance to stem nematode. Reaction to spotted alfalfa aphid, blue alfalfa aphid, Phytophthora root rot and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1996 on 220 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: Platinum Experimental Designation: C310

   Date submitted: November, 1998

GH750

1. GH750 is a 180-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Aphanomyces root rot (Race 1). Parental germplasm traces to GH755, Multi-plier and WL 252 HQ. Approximate germplasm source contributions are M. facata – 14%; Ladak – 15%; M. varia – 24%; Turkistan – 23%; Flemish – 18%; and Chilean – 6%.

2. GH750 is adapted for use in the North Central and East Central regions of the United States. GH750 has been yield tested in Pennsylvania and Wisconsin.

3. Flower color of GH750 at Syn 2 approximates 100% purple with a trace of variegated and white. The fall dormancy of GH750 is similar to Legend (Class 4).

4. GH750 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); resistance to pea aphid and spotted alfalfa aphid; and moderate resistance to stem nematode. Reaction to blue alfalfa aphid and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 180 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name:GH750 Experimental Designation: C230

   Date submitted: November, 1998

92-296

1. 92-296 is a 235-plant synthetic variety resulting from phenotypic recurrent selection for stem nematode. Source material traces to elite WL germplasm selected for yield and persistence from field yield trials at Bakersfield, California. Parental germplasm traces to WL 457, WL 514 and Cuf 101. Approximate germplasm source contributions are Arabian – 50%, Chilean – 10%, Indian – 10%, African – 20% and Peruvian – 10%.

2. 92-296 is adapted to and intended for use in the Southwestern United States. 92-296 has been yield tested in California.

3. Flower color of 92-296 at Syn 2 approximates 100% purple with traces of cream, white and variegated. The fall dormancy of 92-296 is similar to Cuf 101 (Group 9).

4. 92-296 has high resistance to Fusarium wilt, stem nematode, spotted alfalfa aphid, blue alfalfa aphid and southern root knot nematode; and resistance to bacterial wilt, Phytophthora root rot, pea aphid and northern root knot nematode. Reaction to anthracnose, Verticillium wilt and Aphanomyces root rot (Race 1) has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1992 on 235 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 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 Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental designation: 92-296 Date submitted: November, 1998

Passport

1. Passport is a 120-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Aphanomyces root rot (Race 2). Parental germplasm traces to WL 226, Thrive and WL 323. Approximate germplasm source contributions are M. facata – 18%; Ladak – 18%; M. varia – 28%; Turkistan – 10%; Flemish – 23%; and Chilean – 3%.

2. Passport is adapted for use in the North Central and East Central regions of the United States. It is intended for use in the North Central, East Central and Great Plains regions. Passport has been yield tested in Illinois, Pennsylvania and Wisconsin.

3. Flower color of Passport at Syn 2 approximates 100% purple with a trace of variegated and cream. The fall dormancy of Passport is similar to 5246 (Class 3).

4. Passport has high resistance to anthracnose (Race 1), bacterial wilt, and Phytophthora root rot; resistance to Aphanomyces root rot (Race 1), Aphanomyces root rot (Race 2), stem nematode and pea aphid. Reaction to spotted alfalfa aphid, blue alfalfa aphid, Fusarium wilt, Verticillium wilt and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1996 on 120 plants under cage isolation at Warden, Washington. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: Passport Experimental Designation: W309

   Date submitted: November, 1998

C232

1. C232 is a 180-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality. Parental germplasm traces to ALPHA 2001, Multi-plier, WL 252 HQ and WL 325 HQ. Approximate germplasm source contributions are M. falcata – 11%, Ladak – 17%, M. varia – 22%, Turkistan – 16% and Flemish – 34%.

2. C232 is adapted for use in the North Central and East Central regions of the United States. C232 has been yield tested in Pennsylvania and Wisconsin.

3. Flower color of C232 at Syn 2 approximates 100% purple with a trace of variegated and white. The fall dormancy of C232 is similar to Legend (Class 4).

4. C232 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 and pea aphid. Reaction to blue alfalfa aphid, spotted alfalfa aphid and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 180 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: C232 Date Submitted: November, 1998

C304

1. C304 is a 200-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality. Parental germplasm traces to ABT 350, Rushmore, WL 232 HQ and WL 252 HQ. Approximate germplasm source contributions are M. falcata – 16%, Ladak – 14%, M. varia – 21%, Turkistan – 13% and Flemish – 36%.

2. C304 is adapted for use in the North Central and East Central regions of the United States. It is intended for use in the North Central, East Central and Great Plains regions. C304 has been yield tested in Illinois, Pennsylvania and Wisconsin.

3. Flower color of C304 at Syn 2 approximates 100% purple with a trace of variegated and white. The fall dormancy of C304 is similar to Legend (Class 4).

4. C304 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt and Aphanomyces root rot (Race 1); resistance to Verticillium wilt, stem nematode and spotted alfalfa aphid. Reaction to pea aphid, blue alfalfa aphid, Phytophthora root rot and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1996 on 200 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: C304 Date Submitted: November, 1998

C252

1. C252 is a 90-plant synthetic variety resulting from phenotypic recurrent selection for high relative feed value and yield. Source material traces to eight elite WL experimental lines that had previously been selected for high relative feed value. Parental germplasm traces to WL 457, Cuf 101, WL 514 and Cibola. Approximate germplasm source contributions are Arabian – 50%, Chilean – 30%, Peruvian – 10%, Indian – 5% and African – 5%.

2. C252 is adapted to and intended for use in the Southwestern United States. C252 has been yield tested in California.

3. Flower color of C252 at Syn 2 approximates 100% purple with a trace of variegated. The fall dormancy of C252 is similar to Cuf 101 (Class 9).

4. C252 has high resistance to Fusarium wilt, pea aphid, spotted alfalfa aphid and blue alfalfa aphid; resistance to stem nematode, northern root knot nematode and southern root knot nematode; and moderate resistance to bacterial wilt. Reaction to anthracnose (Race 1), Verticillium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1) has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 90 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 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 Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: C252 Date Submitted: November, 1998

W214

1. W214 is a 100-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality using near infrared reflectance spectroscopy. Parental germplasm traces to DK 127, WL 252 HQ and ALPHA 2001. Approximate germplasm source contributions are M. facata – 18%; Ladak – 22%; M. varia – 30%; Turkistan – 18% and Flemish – 12%.

2. W214 is adapted for use in the North Central and East Central regions of the United States. W214 has been yield tested in Pennsylvania and Wisconsin.

3. Flower color of W214 at Syn 2 approximates 95% purple and 5% variegated with a trace of cream and white. The fall dormancy of W214 is similar to 5246 (Class 3).

4. W214 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); and resistance to Verticillium wilt, stem nematode and spotted alfalfa aphid. Reaction to pea aphid, blue alfalfa aphid and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 100 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: W214 Date submitted: November, 1998

C227

1. C227 is a 132-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Phytophthora root rot and Aphanomyces root rot (Race 1). Parental germplasm traces to Paramount, Royalty, WL 252 HQ, WL 316 and WL 324. Approximate germplasm source contributions are M. falcata – 16%, Ladak – 19%, M. varia – 30%, Turkistan – 15% and Flemish – 20%.

2. C227 is adapted for use in the North Central, East Central and moderately winterhardy intermountain regions of the United States. C227 has been yield tested in New York, Washington and Wisconsin.

3. Flower color of C227 at Syn 2 approximates 100% purple with a trace of variegated and white. The fall dormancy of C227 is similar to Vernal (Class 2).

4. C227 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt and Aphanomyces root rot (Race 1); and resistance to stem nematode, pea aphid and spotted alfalfa aphid. Reaction to blue alfalfa aphid, Verticillium wilt, Phytophthora root rot and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 132 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: C227 Date Submitted: November, 1998

W316

1. W316 is a 117-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality. Parental germplasm traces to Trident II, Pro-Cut 2, Ovation and Paramount. Approximate germplasm source contributions are M. facata – 16%; Ladak – 17%; M. varia – 22%; Turkistan – 7%, Flemish – 36% and Chilean – 2%.

2. W316 is adapted for use in the North Central and East Central regions of the United States. It is intended for use in the North Central, East Central and Great Plains regions. W316 has been yield tested in Illinois, Minnesota, New York and Wisconsin.

3. Flower color of W316 at Syn 2 approximates 100% purple with a trace of variegated and white. The fall dormancy of W316 is similar to 5246 (Class 3).

4. W316 has high resistance to anthracnose (Race 1), bacterial wilt, Phytophthora root rot and Aphanomyces root rot (Race 1); and resistance to stem nematode and pea aphid. Reaction to spotted alfalfa aphid, blue alfalfa aphid, Verticillium wilt, Fusarium wilt and root knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1996 on 117 plants under cage isolation at Warden, Washington. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Experimental Designation: W316 Date submitted: November, 1998

ABT 400 SCL

1. ABT 400 SCL is a 150-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Sclerotinia crown and stem rot. Parental germplasm traces to Chief, GH755, Promise and WL 323. Approximate germplasm source contributions are M. facata – 7%; Ladak – 19%; M. varia – 22%; Turkistan – 10%; Flemish – 34%; and Chilean – 8%.

2. ABT 400 SCL is adapted for use in the North Central, East Central and moderately winterhardy intermountain regions of the United States. ABT 400 SCL has been yield tested in Pennsylvania, Washington and Wisconsin.

3. Flower color of ABT 400 SCL at Syn 2 approximates 100% purple with traces of cream and variegated. The fall dormancy of ABT 400 SCL is similar to Legend (Class 4).

4. ABT 400 SCL has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and pea aphid; resistance to spotted alfalfa aphid; and moderate resistance to stem nematode and northern root knot nematode. Reaction to blue alfalfa aphid and Fusarium wilt has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on 150 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed will be produced for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively. Foundation seed must be produced above 40 degrees North latitude. Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1999.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: ABT 400 SCL Experimental Designation: C231

   Date submitted: November, 1998

WL 232 HQ

1. WL 232 HQ is a 137-plant synthetic variety resulting from phenotypic recurrent selection for high relative feed value (using NIRS and wet chemistry techniques). Source material traces to four elite breeding lines selected for resistance to Phytophthora root rot. Parental germplasm traces to DK 122, ALPHA 2001, WL 252 HQ, Vernal, and Ovation. Approximate germplasm source contributions are M. falcata – 16%, Ladak – 19%, M. varia – 27%, Turkistan – 6%; and Flemish – 32%.

2. WL 232 HQ is adapted to and intended for use in the North Central and East Central regions of the United States. WL 232 HQ has been yield tested in New York and Wisconsin.

3. Flower color of WL 232 HQ at Syn 2 approximates 100% purple with traces of cream, variegated and white. The fall dormancy of WL 232 HQ is similar to Vernal (Class 2).

4. WL 232 HQ has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (Race 1); resistance to pea aphid, spotted alfalfa aphid and stem nematode; and low resistance to northern root-knot nematode. Reaction to blue alfalfa aphid has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1994 on 137 plants under cage isolation at Bakersfield, CA. Sufficient foundation seed for the expected life of the variety will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. Foundation seed must be produced above 40 degrees North latitude. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1998.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: WL 232 HQ

10. Experimental Designation: C131 Date Submitted: November 1997

    Date NAVRB first accepted this variety: January 1998

    Date this amendment submitted: November 1998

FQ 314

1. FQ 314 is a 200-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Phytophthora root rot. Source material traces to two elite breeding lines selected for high relative feed value (using NIRS and wet chemistry techniques). Parental germplasm traces WL 252 HQ and ALPHA 2001. Approximate germplasm source contributions are M. falcata – 14%, Ladak – 18%, M. varia – 24%, Turkistan – 8%; and Flemish – 36%.

2. FQ 314 is adapted to and intended for use in the North Central and East regions of the United States. FQ 314 has been yield tested in Illinois, Pennsylvania, and Wisconsin.

3. Flower color of FQ 314 at Syn 2 approximates 100% purple with traces of cream and variegated. The winter survival of FQ 314 is similar to Vernal (Class 2), and the fall dormancy of FQ 314 is similar to 5246 (Class 3).

4. FQ 314 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphanomyces root rot (Race 1); resistance to pea aphid and spotted alfalfa aphid; and resistance to stem nematode. Reaction to blue alfalfa aphid and root-knot nematode has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1994 on 200 plants under cage isolation at Bakersfield, CA. Sufficient foundation seed for the expected life of the variety will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed are recognized. . Foundation seed must be produced above 40 degrees North latitude. The maximum permitted length of stand for Foundation and Certified seed fields are three and five years, respectively Production of Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1998.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: FQ 314

10. Experimental Designation: C134 Date Submitted: November 1997

    Date NAVRB first accepted this variety: January 1998

    Date this amendment submitted: November 1998

WL 711 WF

1) WL 711 WF is a 115-plant synthetic variety resulting from phenotypic recurrent selection for resistance to silverleaf whitefly (Bemsia argentifolii) in a field nursery near Westmorland, CA. Source material traces to two very non-dormant lines selected for resistance to spotted alfalfa aphid. Parental germplasm traces to Hasawi, WL 605 and Pioneer 5929. Approximate germplasm source contributions are Chilean – 5%; Peruvian – 5%; Indian – 10%; African – 30%; and Arabian – 50%.

2) WL 711 WF is adapted to and intended for use in the Southwestern United States. WL 711 WF has been yield tested in California.

3) Flower color of WL 711 WF at Syn 2 approximates 100% purple with a trace of cream and variegated. The fall dormancy of WL 711 WF is similar to the Class 10 varieties.

4) WL 711 WF has high resistance to Fusarium wilt, pea aphid, blue alfalfa aphid, northern root-knot nematode and southern root-knot nematode; and resistance to Phytophthora root rot, stem nematode and spotted alfalfa aphid. Reaction to anthracnose (Race 1), bacterial wilt, Verticillium wilt and Aphanomyces root rot (Race 1) has not been adequately tested.

5) Breeder seed was produced in 1991 on 115 plants under cage isolation at Bakersfield, California. Sufficient foundation seed for the expected life of the variety will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 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 Syn 3 Foundation seed requires consent of the breeder.

6) Certified seed will be marketed in 1998.

7) It is undecided whether application will be made for Plant Variety Protection.

8) The information in this application is available to the PVP office.

9) Variety Name: WL 711 WF Date Submitted: November 1997

Experimental Designation: C290

Date NAVRB first accepted this variety: January, 1998

Date this amendment submitted: November, 1998

GH757

1. GH757 is a 182-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Aphanomyces root rot (Race 2). Source material traces to two elite breeding lines selected for cold tolerance and resistance to Aphanomyces root rot (Race 1) and Phytophthora root rot. Parental germplasm traces to Ovation, Paramount, Trident II, WL 226 and WL 323. Approximate germplasm source contributions are M. falcata – 9%, Ladak – 14%, M. varia – 26%, Turkistan – 7%; Flemish – 37% and Chilean – 7%.

2. GH757 is adapted to and intended for use in the North Central and East Central regions of the United States. GH757 has been yield tested in Illinois, Pennsylvania and Wisconsin.

3. Flower color of GH757 at Syn 2 approximates 100% purple with traces of cream and variegated. The winter survival of GH757 is similar to Dart (Class 3), and the fall dormancy of GH757 is similar to Legend (Class 4).

4. GH757 has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Race 1 Aphanomyces root rot and Race 2 Aphanomyces root rot; resistance to pea aphid and spotted alfalfa aphid; and moderate resistance to stem nematode and northern root-knot nematode. Reaction to blue alfalfa aphid has not been adequately tested.

5. Breeder seed (Syn 1) was produced in 1995 on plants under cage isolation at Warden, Washington. Sufficient foundation seed for the expected life of the variety will be maintained by W-L Research. Foundation seed must be produced above 40 degrees North latitude. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 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 Syn 3 Foundation seed requires consent of the breeder.

6. Certified seed will be marketed in 1998.

7. It is undecided whether application will be made for Plant Variety Protection.

8. The information in this application can be turned over to the PVP office.

9. Variety Name: GH757 Date Submitted: November, 1997

   Experimental Designation: W215

   Date NAVRB first accepted this variety: January 1998

   Date this amendment submitted: November 1998

WL 525 HQ

1) WL 525 HQ is a 120-plant synthetic variety resulting from phenotypic recurrent selection for high forage quality (high crude protein, low acid and neutral detergent fibers) using Near Infrared Reflectance Spectroscopy (NIRS). Source material traces to three experimental lines selected for persistence in a field nursery at Bakersfield, California. Parental germplasm traces to WL 516, 86-222, Ca 898 and Maxidor. Approximate germplasm source contributions are M. varia – 5%, Chilean – 10%, Turkistan – 11%, Flemish – 4%, Peruvian – 11%, Indian – 29% and African – 30%.

2) WL 525 HQ is adapted to central and south central California and intended for use in the southwestern United States. WL 525 HQ has been yield tested in California.

3) WL 525 HQ is a nondormant variety with fall dormancy similar to Moapa 69. Flower color at Syn 2 approximates 99% purple and 1% cream with traces of variegated and white. WL 525 HQ appears to have high forage quality (high crude protein, low acid and neutral detergent fibers) when compared to some commercially available nondormant varieties.

4) WL 525 HQ has high resistance to Fusarium wilt, Phytophthora root rot, blue alfalfa aphid, pea aphid, spotted alfalfa aphid and southern root knot nematode (M incognita); resistance to stem nematode; and moderate resistance to bacterial wilt and northern root knot nematode. Reaction to anthracnose (Race 1), Verticillium wilt and Aphanomyces root rot (Race 1) has not been adequately tested.

5) Breeder seed (Syn 1) was produced in 1990 on 120 plants under cage isolation at Bakersfield, California. Sufficient foundation (Syn 2) seed was produced near Yuma, Arizona for the expected life of the variety and will be maintained by W-L Research. One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 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 Syn 3 Foundation seed requires consent of the breeder.

6) Certified seed will be marketed in 1993.

7) It is undecided whether application will be made for Plant Variety Protection.

8) The information in this application is available to the PVP office.

Date NAVRB first accepted this variety: January, 1993

Date this amendment submitted: November, 1998

Previous amendment accepted: 1994

Cimarron SR Alfalfa

1. The genetic origin of Cimarron SR is Cimarron VR (50%) and Cimarron (50%). The breeding method involved recurrent phenotypic selection for resistance to bacterial wilt, Verticillium wilt, Phytophthora, anthracnose race 1, pea aphid and spotted alfalfa aphid, and vigor. The estimated germplasm sources are M. Falcata (2%), Ladak (2%), M. varia (20%), Turkistan (10%), Flemish (26%), and Chilean (40%).

2. Areas of adaptation for Cimarron SR are East Central and Great Plains. The variety has been tested in Oklahoma and North Carolina. The intended area of use is the East Central region.

3. The fall dormancy of Cimarron SR is similar to Saranac. Flower color is 72% purple and 28% variegated as measured in the Syn 2.

4. Cimarron SR has high resistance to bacterial wilt, anthracnose, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and the pea aphid; resistance to the spotted alfalfa aphid, stem nematode and the southern root knot nematode; and moderate resistance to Aphanomyces (Race 1) root rot.

5. Seed increase is on a limited generation basis with one generation each of breeder, foundation, and certified seed classes: i.e. breeder (Syn 1), foundation (Syn 2), certified (Syn 3). Breeder seed was produced under isolation in Cary, NC. Foundation and certified classes are produced by Great Plains Research Company, Inc., under contract with seed growers. Age of stand for seed production for breeder, foundation, and certified seed is 2, 2, and 6 years, respectively. Breeder and foundation seed stocks are maintained by Great Plains Research Company, Inc. Breeder seed was produced in 1996.

6. Certified seed will be marketed in 1999.

7. Application will be made for Plant Variety Protection under the Act. The certification option will be requested.

8. This information may be forwarded to the PVP office.

9. Variety name: Cimarron SR Date submitted: 11/15/98
Experimental designation: CimSR

1. Cyclone is a synthetic variety with 211 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin nurseries and selections from 1992 breeder seed cages. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Cyclone traces to the following germplasm sources: WinterKing, Maximum I, 9326, Ultraleaf 87, Abbey, Tartan, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (9%), Ladak (6%), M.varia (25%), Turkistan (4%), Flemish (46%), and Chilean (10%).

2. Cyclone is adapted to the North Central, East Central, and Great Plains areas of the U.S. and is intended for use in the North Central, East Central, and Great Plains areas of the U.S.. Cyclone has been tested in Wisconsin, Minnesota, Iowa, Michigan, Pennsylvania, and Nebraska.

3. Cyclone is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% variegated, with a trace of cream, white, and yellow.

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

5. Seed increase of Cyclone 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 cage isolation near Woodland, California in 1993. 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.

6. Certified seed of Cyclone will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Cyclone. Date submitted: December 1, 1998.

Experimental Designation: CW 3347.

1. CW 4223 is a synthetic variety with 170 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin clonal and selection. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of CW 4223 traces to the following germplasm sources GH 767, MultiQueen, 2888, 329, Alfaleaf II, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (9%), Ladak (7%), M.varia (25%), Turkistan (5%), Flemish (45%), and Chilean (9%).

2. CW 4223 is adapted to the North Central area of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. CW 4223 has been tested in Wisconsin, Minnesota, and Iowa.

3. CW 4223 is a dormant variety with fall dormancy similar to Vernal. Flower color observed in the Syn.2 generation is approximately 90% purple, 9% variegated, 1% yellow with a trace of cream and white.

4. CW 4223 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. Reaction to pea aphid, blue alfalfa aphid, stem nematode, and root knot nematode has not been adequately tested.

5. Seed increase of CW 4223 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4223 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date submitted: December 1, 1998.

Experimental Designation: CW 4223.

1. CW 4409 is a synthetic variety with 180 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin clonal nurseries and selections from three year old Missouri yield tests. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of CW 4409 traces to the following germplasm sources: DK 133, Hunter, Ultraleaf 87, Award, Alfaleaf II, GH 787, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (5%), M.varia (26%), Turkistan (5%), Flemish (46%), and Chilean (10%).

2. CW 4409 is adapted to the North Central, East Central, and Great Plains areas of the U.S. and is intended for use in the North Central, East Central, and Great Plains areas of the U.S.. CW 4409 has been tested in Wisconsin, Minnesota, Iowa, Michigan, Pennsylvania, and Nebraska.

3. CW 4409 is a moderately dormant variety with fall dormancy similar to Legend. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% variegated, with a trace of cream, white, and yellow.

4. CW 4409 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 spotted alfalfa aphid and stem nematode. Reaction to pea aphid, blue alfalfa aphid and root knot nematode has not been adequately tested.

5. Seed increase of CW 4409 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4409 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date submitted: December 1, 1998.

Experimental Designation: CW 4409.

1. Sprint is a synthetic variety with 180 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin clonal nurseries and selections from 1993 breeder seed cages. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Sprint traces to the following germplasm sources: Nemesis, MultiQueen, DK 142, GoldPlus, AlfaStar, GH 767, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (26%), Turkistan (4%), Flemish (47%), and Chilean (9%).

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

3. Sprint is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is approximately 98% purple, 2% variegated, with a trace of cream, white, and yellow.

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

5. Seed increase of Sprint 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of Sprint will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Sprint Date submitted: December 1, 1998.

Experimental Designation: CW 4429.

1. Pointer is a synthetic variety with 200 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin nurseries and selections from 1993 breeder seed cages. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Pointer traces to the following germplasm sources: Gold Plus, 2888, DK 142, Nemesis, Alfaleaf II, 329, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (27%), Turkistan (5%), Flemish (45%), and Chilean (9%).

2. Pointer is adapted to the North Central area of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. Pointer has been tested in Wisconsin, Minnesota, and Iowa.

3. Pointer is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is approximately 85% purple, 15% variegated, with a trace of cream, white, and yellow.

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

5. Seed increase of Pointer 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of Pointer will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Pointer Date submitted: December 1, 1998.

Experimental Designation: CW 4437.

1. FQ 315 is a synthetic variety with 214 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin and Minnesota yield tests and selections from three year old Wisconsin nurseries. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of FQ 315 traces to the following germplasm sources: WinterKing, 2888, BigHorn, 9326, Award, MultiQueen, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (9%), Ladak (6%), M.varia (26%), Turkistan (4%), Flemish (46%), and Chilean (9%).

2. FQ 315 is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. FQ 315 has been tested in Wisconsin, Minnesota, Iowa, Michigan, and Pennsylvania.

3. FQ 315 is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is approximately 97% purple, 3% variegated, with a trace of cream, white, and yellow.

4. FQ 315 has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), and spotted alfalfa aphid, with resistance to Verticillium wilt, pea aphid and stem nematode. Reaction to blue alfalfa aphid and root knot nematode has not been adequately tested.

5. Seed increase of FQ 315 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 cage isolation near Woodland, California in 1995. 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.

6. Certified seed of FQ 315 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: FQ 315 Date submitted: December 1, 1998.

Experimental Designation: CW 5302.

1. CW 5428 is a synthetic variety with 168 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin clonal nurseries. Nursery selections were made from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of CW 5428 traces to the following germplasm sources: BigHorn, Hunter, WinterKing, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (25%), Turkistan (4%), Flemish (47%), and Chilean (10%).

2. CW 5428 is adapted to the North Central area of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. CW 5428 has been tested in Wisconsin, Minnesota and Iowa.

3. CW 5428 is a moderately dormant variety with fall dormancy similar to Legend. Flower color observed in the Syn.2 generation is approximately 86% purple, 13% variegated, 1% white, with a trace of cream and yellow.

4. CW 5428 has high resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, and Aphanomyces root rot (race 1) with resistance to Verticillium wilt, spotted alfalfa aphid, pea aphid, blue alfalfa aphid, and stem nematode. Reaction to root knot nematode has not been adequately tested.

5. Seed increase of CW 5428 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 cage isolation near Woodland, California in 1995. 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.

6. Certified seed of CW 5428 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 5428.

1. CW 4696 is a synthetic variety with 266 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and selections from 1993 breeder seed cages. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4696 traces to the following germplasm sources: N650, DK 166, Express, Prince, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (1%), Ladak (2%), M.varia (9%), Turkistan (15%), Flemish (32%), Chilean (12%), Peruvian (2%), Indian (8%), African (15%), and Unknown (4%).

2. CW 4696 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S. and Argentina. CW 4696 has been tested in California.

3. CW 4696 is a moderately dormant variety with fall dormancy similar to ABI 700. Flower color observed in the Syn.2 generation is approximately 94% purple, 6% variegated, with a trace of cream, white, and yellow.

4. CW 4696 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, stem nematode, spotted alfalfa aphid, and blue alfalfa aphid, with resistance to Verticillium wilt and pea aphid. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 4696 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4696 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4696.

1. CW 4598 is a synthetic variety with 291 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and selections from 1993 breeder seed cages. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4598 traces to the following germplasm sources: Felix, N650, GT 58, Archer, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (2%), Ladak (3%), M.varia (10%), Turkistan (13%), Flemish (31%), Chilean (8%), Peruvian (3%), Indian (5%), African (10%), and Unknown (15%).

2. CW 4598 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S. and Argentina. CW 4598 has been tested in California.

3. CW 4598 is a moderately dormant variety with fall dormancy similar to ABI 700. Flower color observed in the Syn.2 generation is approximately 78% purple, 21% variegated, 1% cream, with a trace of white, and yellow.

4. CW 4598 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, and blue alfalfa aphid, with resistance to Verticillium wilt, pea aphid, and stem nematode. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 4598 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4598 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4598.

1. CW 4791 is a synthetic variety with 274 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and multiple pest resistant selections from three year old California selection nurseries. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4791 traces to the following germplasm sources: Alfa 70, SPS 6550, Zeneca 771, Express, and Sutter. Approximate germplasm source contributions are as follows: M.falcata (2%), Ladak (2%), M.varia (7%), Turkistan (19%), Flemish (17%), Chilean (10%), Peruvian (3%), Indian (14%), African (20%), and Unknown (6%).

2. CW 4791 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S. and Argentina. CW 4791 has been tested in California.

3. CW 4791 is a nondormant variety with fall dormancy similar to Sutter. Flower color observed in the Syn.2 generation is approximately 98% purple, 2% variegated, with a trace of cream, white, and yellow.

4. CW 4791 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, and blue alfalfa aphid, with resistance to stem nematode, pea aphid, and spotted alfalfa aphid, and moderate resistance to Verticillium wilt. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 4791 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4791 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4791.

1. CW 4887 is a synthetic variety with 271 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and multiple pest resistant selections from three year old California selection nurseries. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4887 traces to the following germplasm sources: Sutter, DK 166, Express, Prince, ICI 990, Mecca, Armona, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (1%), Ladak (2%), M.varia (6%), Turkistan (16%), Flemish (14%), Chilean (14%), Peruvian (2%), Indian (15%), African (22%), and Unknown (8%).

2. CW 4887 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S. and Argentina. CW 4887 has been tested in California.

3. CW 4887 is a nondormant variety with fall dormancy similar to Sutter. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% variegated, with a trace of cream, white, and yellow.

4. CW 4887 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, and blue alfalfa aphid, with resistance to Verticillium wilt, stem nematode, and pea aphid. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 4887 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4887 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4887.

1. CW 4880 is a synthetic variety with 254 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and multiple pest resistant selections from three year old California selection nurseries. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4880 traces to the following germplasm sources: DK 189, Condor, Yolo, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M. varia (3%), Turkistan (26%), Chilean (6%), Peruvian (6%), Indian (18%), African (36%), and Unknown (5%).

2. CW 4880 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S., Mexico, and Argentina. CW 4880 has been tested in California and Mexico.

3. CW 4880 is a nondormant variety with fall dormancy similar to 5715. Flower color observed in the Syn.2 generation is approximately 97% purple, 3% variegated, with a trace of cream, white, and yellow.

4. CW 4880 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, stem nematode, pea aphid, spotted alfalfa aphid, blue alfalfa aphid, and Southern Root Knot Nematode, with resistance to Verticillium wilt. Reaction to bacterial wilt and Aphanomyces root rot (race 1) has not been adequately tested.

5. Seed increase of CW 4880 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4880 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4880.

1. CW 4888 is a synthetic variety with 222 parent plants which were selected sequentially for resistance to Phytophthora root rot, anthracnose (race 1), and seed yield. Parent plants were selected from crosses between selections from four year old California yield tests and multiple pest resistant selections from three year old California selection nurseries. Selections were made from various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 4888 traces to the following germplasm sources: DK 189, 13R Supreme, Condor, Yolo, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M. varia (3%), Turkistan (28%), Chilean (5%), Peruvian (5%), Indian (14%), African (42%), and Unknown (3%).

2. CW 4888 is adapted to the Southwestern area of the U.S. and is intended for use in the Southwestern U.S., Mexico, and Argentina. CW 4888 has been tested in California and Mexico.

3. CW 4888 is a nondormant variety with fall dormancy similar to 5715. Flower color observed in the Syn.2 generation is approximately 97% purple, 3% variegated, with a trace of cream, white, and yellow.

4. CW 4888 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid, and blue alfalfa aphid with resistance to stem nematode and Verticillium wilt. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 4888 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 cage isolation near Woodland, California in 1994. 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.

6. Certified seed of CW 4888 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 4888.

1. CW 59128 is a synthetic variety with 87 parent plants which were selected from three year old Mexico yield tests. Selections were made from commercial varieties and various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 59128 traces to the following germplasm sources: Grasis, Topacio, Altiva, Almar, Mecca, ICI 990, 5929, and WL 605. Approximate germplasm source contributions are as follows: M.varia (2%), Turkistan (10%), Flemish (1%), Chilean (8%), Peruvian (3%), Indian (20%), African (50%), and Unknown (6%).

2. CW 59128 is adapted to the Southwestern area of the U.S. and Mexico and is intended for use in the Southwestern U.S., Mexico, and Argentina. CW 59128 has been tested in California and Mexico.

3. CW 59128 is a very nondormant variety with fall dormancy similar to CUF 101. Flower color observed in the Syn.2 generation is greater than 99% purple, with a trace of variegated, cream, white, and yellow.

4. CW 59128 has high resistance to Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, and blue alfalfa aphid, with resistance to pea aphid and stem nematode, and moderate resistance to anthracnose (race 1) and Verticillium wilt. Reaction to bacterial wilt, Aphanomyces root rot (race 1), and root knot nematode has not been adequately tested.

5. Seed increase of CW 59128 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 field isolation near Celaya, Mexico in 1995. 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.

6. Certified seed of CW 59128 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 59128.

1. CW 69120 is a synthetic variety with 199 parent plants which were selected from three year old Mexico yield tests. Selections were made from commercial varieties and various populations which were developed by a combination of phenotypic recurrent selection and strain crossing with selection for resistance to one or more of the following pests: Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), spotted alfalfa aphid, blue alfalfa aphid, and stem nematode. Parentage of CW 69120 traces to the following germplasm sources: DK 191, Robusta, Topacio, Mecca, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.varia (3%), Turkistan (11%), Flemish (2%), Chilean (8%), Peruvian (2%), Indian (22%), African (44%), and Unknown (8%).

2. CW 69120 is adapted to the Southwestern area of the U.S. and Mexico and is intended for use in the Southwestern U.S., Mexico, and Argentina. CW 69120 has been tested in California and Mexico.

3. CW 69120 is a very nondormant variety with fall dormancy similar to CUF 101. Flower color observed in the Syn.2 generation is greater than 99% purple, with a trace of variegated, cream, white, and yellow.

4. CW 69120 has high resistance to Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, and blue alfalfa aphid, with resistance to anthracnose (race 1), Verticillium wilt, pea aphid and stem nematode, and moderate resistance to bacterial wilt. Reaction to Aphanomyces root rot (race 1) and root knot nematode has not been adequately tested.

5. Seed increase of CW 69120 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 field isolation near Celaya, Mexico in 1996. 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.

6. Certified seed of CW 69120 will be available in 1999.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name:_____ Date submitted: December 1, 1998.

Experimental Designation: CW 69120.

1. Milk River is a synthetic variety with 263 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from various populations that were developed by phenotypic recurrent selection for multifoliolate leaf expression, and for resistance to one or more of the following pests: bacterial wilt, Aphanomyces root rot (race 1), Phytophthora root rot, anthracnose (race 1), Verticillium wilt, Leptosphaerulina leafspot, and spotted alfalfa aphid. Parentage of Milk River traces to the following germplasm sources: Alfaleaf, Chief, VS-775, Encore, Dk 122, Crown II, Achieva, and Prism. Approximate germplasm source contributions are as follows: M.falcata (7%), Ladak (6%), M.varia (27%), Turkistan (5%), Flemish (46%), and Chilean (9%).

2. Milk River is adapted to the northcentral and northeastern U.S. and is intended for use in the northern and central U.S.. Milk River has been tested in Wisconsin, Minnesota, and Pennsylvania.

3. Milk River is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is approximately 96% purple, 4% variegated, and a trace of white, cream, and yellow. At first flower in autumn approximately 77% of the stems show multifoliolate leaf expression.

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

5. Seed increase 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 cage isolation at Woodland, California in 1991. 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.

6. Certified seed of Milk River will be available in 1994.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Milk River.
Experimental Designation: C/W 1361.
Date NA&MLVRB first accepted this variety: January 1994.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. ***Hunter*** is a synthetic variety with 163 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from various populations that were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), for multifoliolate leaf expression, and for resistance to one or more of the following pests: bacterial wilt, Aphanomyces root rot (race 1), Phytophthora root rot, anthracnose (race 1), Verticillium wilt, Leptosphaerulina leafspot, and spotted alfalfa aphid. Parentage of ***Hunter*** traces to the following germplasm sources: MultiQueen, CW 1404, CW 1434, Jewel, Precedent, Encore, 2833, WL 320, and Prism. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (26%), Turkistan (4%), Flemish (46%), and Chilean (10%).

2. ***Hunter*** is adapted to the northcentral U.S. and is intended for use in the northern and central U.S.. ***Hunter*** has been tested in Wisconsin and Minnesota.

3. ***Hunter*** is a moderately dormant variety with fall dormancy similar to Saranac. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% variegated, and a trace of white, cream, and yellow. ***Hunter*** has greater multifoliolate expression than Multiking I.

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

5. Seed increase 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 cage isolation at Woodland, California in 1992. 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.

6. Certified seed of ***Hunter*** will be available in 1994.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: ***Hunter.***
Experimental Designation: CW 2443.
Date NA&MLVRB first accepted this variety: January 1995.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. 512 is a synthetic variety with 180 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from a polycross among late fall dormant selections from three year old Pennsylvania yield trials. Parentage of 512 traces to the following germplasm sources: DK 133, Bolt ML, Benchmark, Class, and miscellaneous breeding lines. Approximate germplasm source contributions are as follows: M.falcata (7%), Ladak (6%), M.varia (24%), Turkistan (4%), Flemish (48%), and Chilean (11%).

2. 512 is adapted to the North Central U.S. and is intended for use in the northern and central U.S.. 512 has been tested in Wisconsin, Minnesota, and Iowa.

3. 512 is a moderately dormant variety with fall dormancy similar to DuPuits. Flower color observed in the Syn.2 generation is approximately 99% purple, 1% variegated, and a trace of cream, white, and yellow. 512 has multifoliolate leaf expression similar to Multiking I.

4. 512 has high resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, anthracnose (race 1), and blue alfalfa aphid with resistance to Verticillium wilt, Aphanomyces root rot (race 1), stem nematode, pea aphid, and spotted alfalfa aphid. Reaction to root knot nematode has not been adequately tested.

5. Seed increase of 512 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 cage isolation at Woodland, California in 1993. 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.

6. Certified seed of 512 will be available in 1996.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: 512.
Experimental Designation: CW 3512.
Date NA&MLVRB first accepted this variety: January 1996.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. Abound is a synthetic variety with 220 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin nurseries that were derived from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Abound traces to the following germplasm sources: Ciba 2888, GH 767, AlfaStar, MultiQueen, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (25%), Turkistan (5%), Flemish (46%), and Chilean (10%).

2. Abound is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. Abound has been tested in Wisconsin, Minnesota, Iowa, Michigan, and Pennsylvania.

3. Abound is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is greater than 99% purple, with a trace of variegated, yellow, white, and cream.

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

5. Seed increase of Abound 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 cage isolation at Woodland, California in 1994. 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.

6. Certified seed of Abound will be available in 1998.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Abound.
Experimental Designation: CW 4308.
Date NA&MLVRB first accepted this variety: January 1998.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. Legend Gold is a synthetic variety with 160 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin nurseries that were derived from various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of Legend Gold traces to the following germplasm sources: WinterKing, 9326, Maximum I, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (9%), Ladak (6%), M.varia (25%), Turkistan (4%), Flemish (46%), and Chilean (10%).

2. Legend Gold is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. Legend Gold has been tested in Wisconsin, Minnesota, Iowa, and Nebraska.

3. Legend Gold is a dormant variety with fall dormancy similar to Ranger. Flower color observed in the Syn.2 generation is greater than 95% purple and 5% variegated, with a trace of yellow, white, and cream.

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

5. Seed increase of Legend Gold 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 cage isolation at Woodland, California in 1994. 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.

6. Certified seed of Legend Gold will be available in 1998.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: Legend Gold.
Experimental Designation: CW 4335.
Date NA&MLVRB first accepted this variety: January 1998.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. 9429 is a synthetic variety with 273 parent plants which were selected sequentially for multifoliolate leaf expression and for resistance to Phytophthora root rot and Aphanomyces root rot (race 1). Parent plants were selected from crosses between selections from three year old Wisconsin and Minnesota yield trials and various populations which were developed by phenotypic recurrent selection for high relative feed value (using Near Infrared Reflectance Spectroscopy), and for resistance to one or more of the following pests: bacterial wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), anthracnose (race 1), and Leptosphaerulina leafspot. Parentage of 9429 traces to the following germplasm sources: BigHorn, Award, AlfaStar, MultiQueen, and miscellaneous Cal/West Seeds breeding populations. Approximate germplasm source contributions are as follows: M.falcata (8%), Ladak (6%), M.varia (25%), Turkistan (4%), Flemish (47%), and Chilean (10%).

2. 9429 is adapted to the North Central and East Central areas of the U.S. and is intended for use in the North Central and East Central areas of the U.S.. 9429 has been tested in Wisconsin, Minnesota, Michigan, and Nebraska.

3. 9429 is a moderately dormant variety with fall dormancy similar to Saranac. Flower color observed in the Syn.2 generation is greater than 93% purple and 7% variegated, with a trace of cream, white, and yellow.

4. 9429 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (race 1), and blue alfalfa aphid, with resistance to bacterial wilt, Verticillium wilt, stem nematode, pea aphid, and spotted alfalfa aphid. Reaction to root knot nematode has not been adequately tested.

5. Seed increase of 9429 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 cage isolation at Woodland, California in 1995. 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.

6. Certified seed of 9429 will be available in 1998.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: 9429.
Experimental Designation: CW 5426.
Date NA&MLVRB first accepted this variety: January 1998.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

1. DK 191 is a synthetic variety with 87 parent plants which were selected sequentially for resistance to Phytophthora root rot and Anthracnose (race 1). Parent plants were selected from crosses between selections from four year old California yield trials and 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, anthracnose (race 1), Phytophthora root rot, blue alfalfa aphid, and spotted alfalfa aphid. Parentage of DK 191 traces to the following germplasm sources: CW 2817, WL 605, CW 2820, Sundor, and VS-446. Approximate germplasm source contributions are as follows: Ladak (1%), M.varia (4%), Turkistan (15%), Flemish (5%), and Chilean (8%), Peruvian (1%), Indian (21%), African (42%), and Unknown (3%).

2. DK 191 is adapted to the Southwestern U.S. and is intended for use in the Southwestern U.S., Mexico, and Argentina. ***DK 191*** has been tested in California and Mexico.

3. DK 191 is a very non-dormant variety with fall dormancy similar to CUF 101. Flower color observed in the Syn.2 generation is approximately 100% purple.

4. DK 191 has high resistance to anthracnose (race 1), Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, blue alfalfa aphid, pea aphid, and Southern Root Knot Nematode, resistance to stem nematode, and moderate resistance to bacterial wilt and Verticillium wilt. Reaction to Aphanomyces root rot (race 1) has not been adequately tested.

5. Seed increase of DK 191 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 cage isolation at Woodland, California in 1993. 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.

6. Certified seed of DK 191 will be available in 1998.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: DK 191.
Experimental Designation: CW 3988.
Date NA&MLVRB first accepted this variety: January 1997.
Date previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998.

Impact

1. Impact is an advanced generation synthetic variety of red clover with 297 parent plants. Parent plants were selected from various populations for resistance to Fusarium wilt and powdery mildew and for vegetative vigor and persistence in a three year old Wisconsin spaced-plant nursery. 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: southern anthracnose, northern anthracnose, powdery mildew, and Fusarium wilt. Impact was derived from the following varieties: Acclaim (35%), RedStar (20%), Ruby (15%), Atlas (10%), Marathon (10%), and miscellaneous Cal/West Seeds breeding populations (10%). Breeder seed (Syn.1) was produced under cage isolation near Woodland, California in 1990. Seed was bulk harvested from all parent plants.

2. Impact is adapted to the North Central region of the U.S. and is intended for use in the North Central and East Central regions of the U.S.. Impact has been tested in Wisconsin. The intended use for Impact is for hay, haylage, greenchop, or pasture.

3. Maturity and plant height of Impact are similar to the variety Marathon. Flower color is predominantly medium pink and plant color is dark green. Growth habit of Impact is semi-erect to erect. Leaf markings are present on 60 to 65% of the plants.

4. Seed increase of Impact 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 cage isolation near Woodland, California in 1990. 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 years.

5. Certified seed of Impact will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: Impact Date Submitted: December 1, 1998

Experimental Designation: CW 9097

StarFire

1. StarFire is an advanced generation synthetic variety of red clover with 262 parent plants. Parent plants were selected from various populations for resistance to Fusarium wilt and powdery mildew and for vegetative vigor and persistence in a four year old Wisconsin spaced-plant nursery. 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: southern anthracnose, northern anthracnose, powdery mildew, and Fusarium wilt. StarFire was derived from the following varieties: Acclaim (30%), RedStar (20%), Red Baron (20%), Redland II (10%), and miscellaneous Cal/West Seeds breeding populations (20%). Breeder seed (Syn.1) was produced under cage isolation near Woodland, California in 1993. Seed was bulk harvested from all parent plants.

2. StarFire is adapted to the North Central and East Central regions of the U.S. and is intended for use in the North Central and East Central regions of the U.S., Canada, and Europe. StarFire has been tested in Wisconsin, Pennsylvania, and California. The intended use of StarFire is for hay, haylage, greenchop, or pasture.

3. StarFire has resistance to southern anthracnose and northern anthracnose, and moderate resistance to Aphanomyces root rot (race 1). StarFire has improved persistence compared to Marathon, RedStar, and some other cultivars of red clover. Maturity of StarFire is similar to the variety Marathon. Flower color of StarFire is predominantly medium pink and plant color dark green. Growth habit of StarFire is semi-erect to erect. Leaf markings are present on 55 to 60% of the plants.

4. Seed increase of StarFire 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 cage isolation near Woodland, California in 1993. 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 years.

5. Certified seed of StarFire will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: StarFire Date Submitted: December 1, 1998

Experimental Designation: CW 3002

1. CW 9504 is an advanced generation synthetic variety of red clover with 589 parent plants. Parent plants were selected for resistance to northern anthracnose and southern anthracnose in the greenhouse followed by culling in the field seed increase block for susceptibility to Fusarium wilt and powdery mildew, poor vegetative vigor, and poor flowering intensity. CW 9504 was derived from the following varieties: Quinequili (60%), Estanzuela 116 (20%), Cherokee (10%), and Red Star (10%). Breeder seed (Syn.1) was produced under field isolation near Woodland, California in 1995. Seed was bulk harvested from all parent plants.

2. CW 9504 is adapted to the Southwest region of the U.S., Argentina, and South Africa and is intended for use in Argentina, Chile, and South Africa. CW 9504 has been tested in California, Argentina, and South Africa. The intended use of CW 9504 is for hay, haylage, greenchop, or pasture.

3. CW 9504 has resistance to southern anthracnose and moderate resistance to northern anthracnose and Aphanomyces root rot (race 1). CW 9504 is a nondormant red clover variety with a winter active growth habit in areas with mild winter climate. CW 9504 is significantly more nondormant than the variety Cherokee which is currently the only commercial red clover variety considered to be nondormant or semi nondormant. Maturity of CW 9504 is later than Cherokee. Flower color of CW 9504 is predominantly medium pink but nearly one third of the plants have light pink flowers. Leaf color is predominantly medium green and growth habit is erect to semi-erect. Leaf markings are present on 65 to 70% of the plants.

4. Seed increase of CW 9504 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 field isolation near Woodland, California in 1995. 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 years.

5. Certified seed of CW 9504 will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: _____ Date Submitted: December 1, 1998

Experimental Designation: CW 9504

1. CW 9505 is an advanced generation synthetic variety of red clover with 577 parent plants. Parent plants were selected for resistance to northern anthracnose and southern anthracnose in the greenhouse followed by culling in the field seed increase block for susceptibility to Fusarium wilt and powdery mildew, poor vegetative vigor, and poor flowering intensity. CW 9505 was derived from the following varieties: Estanzuela 116 (60%), Quinequili (20%), Cherokee (10%), and Red Star (10%). Breeder seed (Syn.1) was produced under field isolation near Woodland, California in 1995. Seed was bulk harvested from all parent plants.

2. CW 9505 is adapted to the Southwest region of the U.S., Argentina, and South Africa, and is intended for use in Argentina, Chile, and South Africa. CW 9505 has been tested in California, Argentina, and South Africa. The intended use of CW 9505 is for hay, haylage, greenchop, or pasture.

3. CW 9505 has resistance to southern anthracnose, moderate resistance to Aphanomyces root rot (race 1), and low resistance to northern anthracnose. CW 9505 is a nondormant red clover variety with a winter active growth habit in areas with mild winter climate. CW 9505 is significantly more nondormant than the variety Cherokee which is currently the only commercial red clover variety considered to be nondormant or semi nondormant. Maturity of CW 9505 is later than Cherokee. Flower color of CW 9505 is predominantly medium pink. Leaf color is predominantly medium green and growth habit is erect to semi prostrate. Leaf markings are present on 70 to 75% of the plants.

4. Seed increase of CW 9505 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 field isolation near Woodland, California in 1995. 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 years.

5. Certified seed of CW 9505 will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: _____ Date Submitted: December 1, 1998

Experimental Designation: CW 9505

CW 9506

1. CW 9506 is an advanced generation synthetic variety of red clover with 596 parent plants. Parent plants were selected for resistance to northern anthracnose and southern anthracnose in the greenhouse followed by culling in the field seed increase block for susceptibility to Fusarium wilt and powdery mildew, poor vegetative vigor, and poor flowering intensity. CW 9506 was derived from the following varieties: Cherokee (50%), Estanzuela 116 (20%), Red Star (20%), and Quinequili (10%). Breeder seed (Syn.1) was produced under field isolation near Woodland, California in 1995. Seed was bulk harvested from all parent plants.

2. CW 9506 is adapted to the Southwest region of the U.S., Argentina, France, and South Africa and is intended for use in Argentina, Chile, and South Africa. CW 9506 has been tested in California, Argentina, France, and South Africa. The intended use of CW 9506 is for hay, haylage, greenchop, or pasture.

3. CW 9506 has resistance to southern anthracnose and moderate resistance to northern anthracnose and Aphanomyces root rot (race 1). CW 9506 is a nondormant red clover variety with a winter active growth habit in areas with mild winter climate. CW 9506 is significantly more nondormant than the variety Cherokee which is currently the only commercial red clover variety considered to be nondormant or semi nondormant. Maturity of CW 9506 is similar to Cherokee. Flower color of CW 9506 is predominantly dark pink. Leaf color is predominantly dark green and growth habit is semi-erect to semi-prostrate. Leaf markings are present on 70 to 75% of the plants.

4. Seed increase of CW 9506 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 field isolation near Woodland, California in 1995. 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 years.

5. Certified seed of CW 9506 will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: _____ Date Submitted: December 1, 1998

Experimental Designation: CW 9506

CW 190

1. CW 190 is an advanced generation synthetic variety of Ladino type white clover with 205 parent plants. Parent plants were selected following two cycles of phenotypic recurrent selection at Woodland, California for vegetative vigor following frequent cutting, flowering intensity, and freedom from leaf disease and virus in large spaced-plant nurseries. Selection was entirely within the Brown Loam Synthetic No.2 germplasm (PI 512040). Each cycle of selection, approximately 300 seedlings were established as spaced plants on a 3-foot x 3-foot grid spacing. Selection intensities of 5 and 7% were imposed in the first and second cycles of selection, respectively. Breeder seed (Syn.1) was produced under open isolation near Woodland, California in 1991. Seed was bulk harvested from all parent plants.

2. CW 190 is adpated to the Southwestern, Southeastern, and East Central regions of the U.S. and Japan and is intended for use in the Southeastern U.S., Europe, and Japan. CW 190 has been tested in California, Mississippi, Kansas, and Japan. The intended use of CW 190 is for hay, haylage, greenchop, or pasture, primarily in mixtures with forage grasses.

3. CW 190 is later in maturity and has a higher frequency of plants without leaf markings compared to Regal.

4. Seed increase of CW 190 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 field isolation near Woodland, California in 1991. 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 2 and 4 years, respectively.

5. Certified seed of CW 190 will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: _____ Date Submitted: December 1, 1998

Experimental Designation: CW 190

1. CW 9300 is an advanced generation synthetic variety of Ladino type white clover with 375 parent plants. Parent plants were selected at Woodland, California for vegetative vigor following frequent cutting, flowering intensity, and freedom from leaf disease and virus in a large spaced-plant nursery. Parentage of CW 9300 traces to the following varieties: Canopy (50%), California (20%), Titan (15%), and Merit (15%). Breeder seed (Syn.1) was produced under open isolation near Woodland, California in 1993. Seed was bulk harvested from all parent plants.

2. CW 9300 is adapted to the Southwestern and East Central regions of the U.S., Canada, and Japan and is intended for use in the North Central and North Eastern regions of the U.S., Canada, and Japan. CW 9300 has been tested in California, Kansas, Canada, and Japan. The intended use of CW 9300 is for hay, haylage, greenchop, or pasture primarily in mixtures with forage grasses.

3. CW 9300 is earlier in maturity than Canopy and California.

4. Seed increase of CW 9300 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 field isolation near Woodland, California in 1993. 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 2 and 4 years, respectively.

5. Certified seed of CW 9300 will be available in 1999.

6. No decision has been made regarding Plant Variety Protection.

7. This information can be forwarded to the PVP office.

8. Variety Name: _____ Date Submitted: December 1, 1998

Experimental Designation: CW 9300

Tristar (H-172)

1. Tristar is a population originating from 876 individual plants selected from a disease and stem nematode nursery near Hollister, California. All 876 individual plants trace to a certified lot of Duke. Selected plants were intercrossed in isolation near Hollister, California in 1986. The resulting Synthetic-one generation seed is designated as breeders seed. Germplasm of this cultivar traces to M. falcata (5%), Ladak (6%), M. varia (20%), Turkistan (10%), Flemish (22%), Chilean (29%), Peruvian (1%), Indian (0%), African (0%), Arabian (0%) and unknown (7%).

2. Tristar is adapted to the western United States and is intended for use in Northern California, Southern Oregon and the western half of Nevada where moderately dormant varieties are grown.

3. Tristar is a moderately dormant variety with a fall dormancy similar to Saranac. Flower color observed in the Syn. 2 generation is approximately 84% purple, 16% variegated and trace amount each of yellow, white and cream.

4. Tristar has resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, pea aphid, and stem nematode; and moderate resistance to anthracnose (Race 1), spotted alfalfa aphid, and southern root knot nematode (*M. incognita*); reaction to Aphanomyces root rot (Race 1), Verticillium wilt, blue alfalfa aphid and northern root knot nematode (*M. hapla*) has not been adequately tested.

5. Seed increase of Tristar is on a limited generation basis with two generations of the breeder, 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 (Syn. 1) was produced under open isolation at Hollister, California in 1986. Sufficient foundation seed for the projected life of the variety will be maintained by Lohse Mill Inc. Stands of foundation and certified seed fields are limited to 3 and 6 years respectively.

6. Certified seed will be available in 1999.

7. No application will be made for Plant Variety Protection.

8. Information in this application may be given to the PVP office.

9. Variety name: Tristar Date submitted: December 1, 1998

Experimental designation: H-172

Falcon (Amendment 2)

1. Falcon was developed by phenotypic selection for resistance to Phytophthora root rot, stem nematode and foliar diseases. Parentage traces to GT 13R Plus (50%), AS 13R (10%), BAA-15 (10%), Nev. Syn XX (15%), WL 512 (5%), WL 514 (5%), and Pioneer Brand 572 (5%). Falcon originated from African (35%), Indian (49%), Chilean (2%), Turkistan (4%), and M. varia (10%) sources.

2. Falcon is intended for use as hay, greenchop or dehy in central and southern California and desert valleys of AZ, NM and NV. Falcon has been tested in CA and NM.

3. Falcon is a nondormant variety with fall dormancy similar to Moapa 69. Flower color is 100% purple.

4. Falcon has high resistance to Fusarium wilt, resistance to southern root knot nematode, moderate resistance to Phytophthora root rot, pea aphid, spotted alfalfa aphid, blue aphid, and stem nematode, low resistance to bacterial wilt, and is susceptible to anthracnose. Falcon has not been tested for resistance to verticillium wilt.

5. Breeders seed (syn. 2) was produced near Hollister, CA with a sufficient quantity for the expected life of the variety held in storage. Seed increase is limited to one generation each of breeder, foundation and certified seed classes. Stand longevity is limited to 3, 5, and 6 years for breeders, foundation, and certified seed fields, respectively. Seed production is limited to CA, AZ and NM. Sufficient foundation seed for the projected life of the variety will be maintained by Lohse Mill Inc.

6. Certified seed will be available in 1990.

7. Applications will not be made for PVP.

8. Information in this application may be turned over to the PVP office.

9. Variety name: Falcon

Date NAVRB first accepted this variety: 2/90

Dates previous amendments were accepted: 1/96

Date this amendment submitted: 12-1-98

LM455 (Amendment 3)

1. LM 455 traces to two experimental populations. One population was developed from WL 318 by two cycles of phenotypic recurrent selection for resistance to Phytophthora root rot, anthracnose, spotted alfalfa aphid and stem nematode. The second population consisted of Verticillium wilt resistant selections from Sabilt, Sverre and Vertus. Two hundred plants from the WL 318 population (67%) were intercrossed with 100 plants from the Sabilt-Sverre-Vertus population (33%) to produce the Syn. 1 generation. Estimated germplasm sources are M. falcata (2%), Ladak (1%), M. varia (18%), Turkistan (15%), Flemish (37%), Chilean (15%), Peruvian (3%) and unknown (9%).

2. LM 455 is adapted to, and intended for use in the western region of the US where moderately dormant varieties are grown. It has been tested in NM, CA, NV, IL, IA, MI, SD, and WI.

3. LM 455 is a moderately dormant variety with fall dormancy similar to Lahontan. Flower color of the Syn. 2 is approximately 90% purple, 7% variegated, and 3% white with a trace of cream and yellow flowers.

4. LM 455 has high resistance to Fusarium wilt, pea aphid and spotted alfalfa aphid; resistance to bacterial wilt, Phytophthora root rot, stem nematode and blue alfalfa aphid; moderate resistance to Verticillium wilt and southern root-knot nematode (*M. incognita*); and low resistance to anthracnose (Race 1). LM 455 has not been tested for resistance to Aphanomyces root rot.

5. Breeder seed (Syn. 1) was produced in an open isolation in 1981 and 1982 and bulked, with sufficient quantity held in storage for the life of the variety. Seed increase is on a three generation basis with 2, 3 and 6 year stand life permitted for breeder (Syn. 1), foundation (Syn. 2 or Syn. 3), and certified (Syn. 3 or Syn. 4) seed classes, respectively. Breeder seed production is limited to California with foundation and certified seed production limited to CA, WA, OR or ID. Breeder seed will be maintained by Lohse Mill Inc.

6. Certified seed will be available in 1993.

7. No application will be made for plant variety protection.

8. Information in this application may be given to the PVP office.

9. Variety name: LM 455

   Experimental designations: IH-101, GT55, NPI455

   Date NA&MLVRB first accepted this variety: 3/93

   Dates previous amendments were accepted: 1/97, 1/98

   Date this amendment submitted: 12/01/98

LM 456 (Amendment 1)

1. LM 456 (experimental designation IH-171) is a broad based population originating from 2420 plants phenotypically selected from a disease-stem nematode nursery near Hollister, California. Parentage Traces to IH 101R (19), Trumpetor (172), Pike (42), WL 318 (79), WL 316 (131), AS 49R (168), LM 455 (65) and 10 FSRC experimental lines (1648). Selected plants were intercrossed in an open isolation near Hollister, California in 1985 and 1986 with Syn. 1 generation designated as breeder seed.

2. LM 456 is adapted to and intended for use in the western region of the United States where moderately dormant varieties are grown. It has been tested in the Sacramento and San Joaquin valleys of California; eastern counties of Oregon; Nevada and New Mexico.

3. LM 456 is a moderately dormant variety with fall dormancy similar to Dupuits. Flower color observed in the Syn. 2 generation is approximately 90% purple, 1% yellow, 2% white, 7% variegated.

4. LM 456 has high resistance to blue alfalfa aphid, with resistance to anthracnose (race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, stem nematode and southern root knot nematode (*M. incognita*), with moderate resistance to Verticillium wilt, pea aphid, and spotted alfalfa aphid. LM 456 has not been tested for resistance to Aphanomyces root rot (race 1).

5. Seed increase of LM 456 is on a limited generation basis with two generations of breeder, foundation, and certified seed classes. Breeder (Syn. 1), foundation (Syn. 2 or Syn. 3), and certified classes (Syn. 3 or Syn. 4) classes will be recognized. Breeder seed was produced under open isolation at Hollister, California in 1985 and 1986. Sufficient foundation seed for the projected life of the variety will be maintained by Lohse Mill, Inc. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively. Areas for seed production are limited to California, Oregon, Washington and Idaho.

6. Certified seed of LM 456 will be available in 1997.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety Name: LM 456

   Experimental Designation: IH-171

   Date NA&MLVRB first accepted this variety: January 1997

   Date previous amendments were accepted: _____

   Date submitted: December 1, 1998

LM 459 (Amendment 3)

1. LM 459 was developed by two cycles of phenotypic recurrent selection from a population created by intercrossing selected plants from Deseret, GT58, Resis, and FSRC experimental lines F-129, H-131, F-133, H-134, F-146, H-154 and H-156. Selection criterion were resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, and stem nematode. Approximately 2000 second cycle selections were intercrossed to produce the Syn. 1 generation. Estimated germplasm sources are M. falcata (1%), Ladak (2%), M. varia (16%), Turkistan (18%), Flemish (37%), Chilean (10%), Peruvian (2%) and unknown (14%).

2. LM 459 is adapted to and intended for use in the western region of the US where moderately dormant varieties are grown. It has been tested in CA, IN and NM.

3. LM 459 is a moderately dormant variety with fall dormancy similar to DuPuits. Flower color of the Syn. 2 generation is approximately 92% purple, 6% variegated, and 2% white with a trace of cream and yellow.

4. LM 459 has high resistance to Fusarium wilt, stem nematode and pea aphid; resistance to bacterial wilt, Verticillium wilt, stem nematode, spotted alfalfa aphid, blue alfalfa aphid, Phytophthora root rot and southern root knot nematode (*M. incognita*); moderate resistance to anthracnose (Race 1); low resistance to northern root knot nematode (M. hapla); and is susceptible to Aphanomyces root rot (Race 1).

5. Breeder seed (Syn. 1) was produced in 1985 and 1986 in a open isolation and bulked with a sufficient quantity held in storage for the expected life of the variety. Seed increase is on a three generation basis with a 1, 2, 3 and 6 year stand life permitted for breeder seed (Syn. 1), foundation (Syn. 2 or Syn. 3) and certified (Syn. 3 or Syn. 4) seed classes, respectively. Breeder seed production is limited to California CA, with foundation and certified seed production limited to CA, WA, OR or ID. Breeder seed will be maintained by Lohse Mill Inc.

6. Certified seed will be available in 1994.

7. No application will be made for Plant Variety protection.

8. Information in this application may be given to the PVP office.

9. Variety name: LM 459

   Experimental designations: IH-175

   Date NA&MLVRB first accepted this variety: 2/94

   Dates previous amendments were accepted: 1/97, 1/98

   Date this amendment submitted: December 1, 1998

ACHIEVER (Amendment 1)

1. Achiever was derived from LM 455 by an additional cycle of phenotypic recurrent selection for *Phytophthora* root rot, anthracnose, spotted alfalfa aphid and stem nematode in a field selection nursery near Hollister, California and from a *Verticillium* wilt selection nursery near Moses Lake, Washington. A total of 450 plants were intercrossed in a cage isolation at Merced, California in 1990 with all seed bulked to produce the Syn. 1 generation designated as breeder seed.

2. Achiever is adapted to and intended for use in the western region of the United States where moderately nondormant varieties are grown. It has been tested in the Sacramento and the San Joaquin valleys of California.

3. Achiever is a moderately nondormant variety with fall dormancy similar to Sutter. Flower color observed in the Syn. 2 generation is approximately 90% purple, 7% variegated, 3% white with a trace of cream and yellow flowers.

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

5. Seed increase of Achiever is on a limited generation basis with two generations of the breeder, 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 (Syn. 1) was produced under open isolation near Hollister, California in 1990. Lohse Mill, Inc. 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.

6. Certified Seed of Achiever will be available in 1997.

7. No decision has been made regarding plant variety protection.

8. This information can be forwarded to the PVP office.

9. Variety name: Achiever

Date NAVRB first accepted this variety: 1/97
Dates previous amendments were accepted: _____
Date this amendment submitted: December 1, 1998

WestStar (Amendment 3)

1. WestStar is a synthetic variety with 187 parent plants which were selected for field persistence and for resistance to Phytophthora root rot and stem nematode. WestStar was developed by mass selection. Parentage of WestStar traces to the following germplasm sources: Maricopa (40%), Yolo (30%), Pioneer 5929 (10%), Baron (10%), and Diamond (10%). Approximate germplasm source contributions are as follows: Ladak (1%), M. varia (14%), Turkistan (26%), Flemish (1%), Chilean (9%), Peruvian (2%), Indian (22%), African (16%), and Unknown (9%).

2. WestStar is adapted to the Southwestern U.S. and is intended for use in the Southwestern U.S.

3. WestStar is a non-dormant variety with fall dormancy similar to 5715. Flower color observed in the Syn 2 generation is approximately 100% purple, with a trace of variegated.

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

5. Seed increase of WestStar is on a limited generation basis with two generations of the breeder, 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 under open isolation at Hollister, California in 1991. Sufficient foundation seed for the projected life of the variety will be maintained by Lohse Mill Inc. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively.

6. Certified Seed of WestStar will be available in 1996.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety name: WestStar

   Experimental designation 88 SWR

   Date NA&MLVRB first accepted this variety: January 1996

   Date previous amendments were accepted: 1/97, 1/98

   Date submitted: December 1, 1998

DK131HG

1. DK131HG is a synthetic variety with 165 parent plants. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction and pest resistance from several breeding populations previously selected for 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) and potato leafhopper. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars and germplasm releases: Rushmore (30%), DK133 (18%), Sterling (15%), Pacesetter (12%), DK121HG (10%), Legend (6%) and the germplasm releases- 81IND-2, KS108GH5, and KS94GH6 (3% each). Registrations of the germplasm release populations were published in Crop Science. Breeder seed (Syn1) was produced near Nampa, ID in 1996, harvested in total from all parent plants and bulked. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak (5%), *M.varia* (22%), Turkistan (4%), Flemish (55%), Chilean (2%) and unknown (9%).

2. DK131HG is adapted to the North Central and East Central United States and intended for use in the North Central, East Central United States and Eastern Canada. It has been tested in Wisconsin, Minnesota and Illinois.

3. Fall dormancy of DK131HG is similar to the FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 48% purple, 35% variegated, 10% white and 7% yellow, with a trace of cream.

4. DK131HG has high resistance to bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (Race 1), Phytophthora root rot and potato leafhopper; resistance to Aphanomyces root rot (Race 1), northern root knot nematode, pea aphid and spotted alfalfa aphid; moderate resistance to stem nematode; and low resistance to blue alfalfa aphid.

5. Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Syn1 breeder seed was produced near Nampa, ID in 1996. The breeder will maintain sufficient breeder (Syn1) and foundation (Syn2 or Syn3) for the projected life of the variety. Production of Syn3 foundation seed requires the 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

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

9. Variety Name: DK131HG Date Submitted 11/1/98

Experimental designations: FG 4R25

FQ302HR

1. FQ302HR is a synthetic variety with 65 parent plants. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction and pest resistance from several breeding populations previously selected for 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) and potato leafhopper. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars and germplasm releases: Rushmore (30%), DK133 (18%), Sterling (15%), Pacesetter (12%), DK121HG (10%), Legend (6%) and the germplasm releases- 81IND-2, KS108GH5, and KS94GH6 (3% each). Registration of the germplasm release populations were published in Crop Science. Breeder seed (Syn 1) was produced near Nampa, ID in 1996, harvested in total from all parent plants and bulked. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak(5%), *M. varia* (22%), Turkistan (4%), Flemish (55%), Chilean (2%) and Unknown (9%).

2. This variety is adapted to the North Central and East Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Illinois and Minnesota.

3. Fall dormancy of this variety is similar to the FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 58% purple and 42% variegated, with a trace of cream, white, and yellow.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, and potato leafhopper; resistance to Verticillium wilt, stem nematode, and Aphanomyces root rot (Race 1); and moderate resistance to spotted alfalfa aphid. Reaction to blue alfalfa aphid, pea aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1996. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: FQ302HR Date Submitted 11/1/98

Experimental designations: FG 4R20

6410

1. 6410 is a synthetic variety with 12 parent clones. Parents were selected for forage yield, persistence, forage quality, rapid recovery after cutting, and multifoliolate expression from two-and three-year-old Wisconsin breeding nurseries. Parents trace to breeding populations selected for multifoliolate expression and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Verticillium wilt, anthracnose (Race 1), Leptosphaerulina leaf spot, pea aphid and spotted alfalfa aphid. Recurrent phenotypic selection was used. Germplasm sources used in developing 6410 were: DK 127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 seed was produced near Nampa, ID in 1995, harvested in total and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Iowa and Minnesota.

3. Fall dormancy of this variety is similar to the FD4 checks and winter survival of this variety is similar to WS1 checks. Flower color in the Syn2 is 79% purple and 21% variegated, with a trace of cream, white, and yellow. 6410 has high multifoliolate leaf expression.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Aphanomyces root rot (Race 1), and Phytophthora root rot; and resistance to pea aphid and spotted alfalfa aphid. Reaction to blue alfalfa aphid, stem nematode 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: 6410 Date Submitted 11/1/98

Experimental designations: FG 4G70

FG 4R37

1. FG 4R37 is a synthetic variety with 100 parent plants. Parents were selected for potato leafhopper resistance in greenhouse tests from the varieties Trailblazer (58%), Arrest (29%) and DK121HG (13%). Phenotypic selection was used in the development of this variety. Breeder seed (Syn 2) was produced near Nampa, ID in 1996, harvested in total from all parent plants and bulked. Approximate germplasm source contributions are: *M. falcata* (4%), Ladak (4%), *M. varia* (22%), Turkistan (4%), Flemish (55%), Chilean (2%) and Unknown (9%).

2. This variety is adapted to the North Central and East Central United States and intended for use in the North Central and East Central United States. It has been tested in Wisconsin, Illinois and Minnesota.

3. Fall dormancy of this variety is similar to the FD3 checks and winter survival of this variety is similar to WS3 checks. Flower color in the Syn3 is 63% purple and 37% variegated, with a trace of cream, white, and yellow.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, and Phytophthora root rot; and resistance to Verticillium wilt, stem nematode, pea aphid, potato leafhopper and Aphanomyces root rot (Race 1). Reaction to blue alfalfa aphid, spotted alfalfa aphid 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 (Syn2), foundation (Syn3), and certified (Syn4) classes will be recognized. Breeder seed was produced near Nampa, Idaho in 1996. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: _____ Date Submitted 11/1/98

Experimental designations: FG 4R37

DK134

1. DK134 is a synthetic variety with 13 parent clones. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from several breeding populations previously selected for 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) and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars: DK127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 was produced near Nampa, ID in 1995, harvested in total and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

2. This variety is adapted to the North Central United States and intended for use in the North Central, East Central and Winterhardy Intermountain United States. This variety has been tested in Wisconsin, Minnesota and Iowa.

3. This variety has fall dormancy similar to FD3 checks and winter survival similar to WS1 checks. Flower color (Syn2) is 91% purple, 7% varigated, 1% yellow and 1% white, with a trace of cream. DK134 has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, Verticillium wilt and Aphanomyces root rot (Race 1); resistance to pea aphid and northern root knot nematode; moderate resistance to blue alfalfa aphid; and low resistance to stem nematode. Reaction to spotted 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: DK134 Date Submitted 11/1/98

Experimental designations: FG 3G51

Trailblazer 3.0

1. Trailblazer 3.0 is a synthetic variety with 18 parent clones. Parents were selected for forage yield, fall dormancy reaction and potato leafhopper resistance from the varieties Trailblazer (55%), Arrest (33%), and DK121HG (12%). Phenotypic selection was used in the development of this variety. Breeder seed (Syn 1) was produced near Nampa, ID in 1996. Approximate germplasm source contributions are: *M. falcata* (4%), Ladak (4%), *M. varia* (23%), Turkistan (4%), Flemish (53%), Chilean (2%) and Unknown (10%).

2. This variety is adapted to the North Central United States and intended for use in the North Central and East Central United States. It has been tested in Wisconsin, Illinois and Minnesota.

3. Fall dormancy of this variety is similar to the FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 61% purple and 39% variegated, with a trace of cream, white, and yellow.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, and Phytophthora root rot; resistance to stem nematode, pea aphid, Aphanomyces root rot (Race 1), and potato leafhopper; and moderate resistance to spotted alfalfa aphid. Reaction to blue alfalfa aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1996. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: Trailblazer 3.0 Date Submitted 11/1/98

Experimental designations: FG 4R38

6310

1. 6310 is a synthetic variety with 15 parent plants. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction and pest resistance from several breeding populations previously selected for 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) and potato leafhopper. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars and germplasm releases: Rushmore (30%), DK133 (18%), Sterling (15%), Pacesetter (12%), DK121HG (10%), Legend (6%) and the germplasm releases- 81IND-2, KS108GH5, and KS94GH6 (3% each). Registration of the germplasm release populations were published in Crop Science. Breeder seed (Syn 1) was produced near Nampa, ID in 1996, harvested in total from all parent plants and bulked. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak (5%), *M. varia* (22%), Turkistan (4%), Flemish (55%), Chilean (2%) and Unknown (9%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Illinois and Minnesota.

3. Fall dormancy of this variety is similar to the FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 60% purple and 40% variegated, with a trace of cream, white, and yellow.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot and potato leafhopper; resistance to Verticillium wilt, stem nematode, pea aphid, and Aphanomyces root rot (Race 1). Reaction to blue alfalfa aphid, spotted alfalfa aphid, 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1996. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: 6310 Date Submitted 11/1/98

Experimental designations: FG 3R22

Trump

1. Trump is a synthetic variety with 150 parent plant clones. Parents were selected based on clonal and/or progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from breeding populations previously selected for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, Aphanomyces root rot (Race 1) and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following culitvars: Sterling (32%), Excalibur II (25%), 330 (24%), Rushmore (15%) and LegenDairy (4%). Breeder seed (Syn1) was produced near Nampa, Idaho in 1994. Breeder seed was harvested as the bulk from all plants. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (6%), *M. varia* (24%), Turkistan (2%), Flemish (58%), and Chilean (4%).

2. This variety is adapted to the North Central U. S. and intended for use in the North Central and East Central United States. This variety has been tested in Wisconsin, Minnesota and Iowa.

3. This variety has fall dormancy similar to FD3 checks and winter survival similar to WS2 checks. Flower color (Syn2) is 85% purple, 11% variegated, 2% yellow and 2% white, with a trace of cream. Trump has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot and Aphanomyces root rot (Race 1); resistance to Verticillium wilt and pea aphid; and moderate resistance to spotted alfalfa aphid and stem nematode. Reaction to northern root knot nematode and blue 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: Trump Date Submitted 11/1/98

Experimental designations: FG 3L54

Geneva

1. Geneva is a synthetic variety with 11 parent clones. Parents were selected for forage yield, persistence, forage quality, rapid recovery after cutting, and multifoliolate expression from two- and three-year-old Wisconsin breeding nurseries. Parents trace to breeding populations selected for multifoliolate expression and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Verticillium wilt, anthracnose (Race 1), Leptosphaerulina leaf spot, pea aphid and spotted aphid. Recurrent phenotypic selection was used. Germplasm sources used in developing Geneva were: DK 127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 seed was produced near Nampa, ID in 1995, harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

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

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WS2 checks. Flower color (Syn2) is 96% purple, 2% variegated, 1% yellow and 1% white, with a trace of cream. Geneva has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, Verticillium wilt, Aphanomyces root rot (Race 1) and pea aphid; resistance to spotted alfalfa aphid and stem nematode; and low resistance to blue alfalfa aphid. Reaction to 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1998.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: Geneva Date Submitted 11/1/98

Experimental designations: FG 4G75

FG 3G56

1. FG 3G56 is a synthetic variety with 13 parent clones. Parents were selected for forage yield, persistence, forage quality, rapid recovery after cutting, and multifoliolate expression from two-and three-year-old Wisconsin breeding nurseries. Parents trace to breeding populations selected for multifoliate expression and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Verticillium wilt, anthracnose (Race 1), Leptosphaerulina leaf spot, pea aphid and spotted alfalfa aphid. Recurrent phenotypic selection was used. Germplasm sources used in developing FG 3G56 were: DK 127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 was produced near Nampa, ID in 1995, harvested in total and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Iowa and Minnesota.

3. Fall dormancy of this variety is similar to the FD4 checks and winter survival of this variety is similar to WS1 checks. Flower color in the Syn2 is 72% purple and 28% variegated, with a trace of cream, white, and yellow. FG 3G56 has high multifoliate leaf expression.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, and Phytophthora root rot; resistance to Verticillium wilt, pea aphid, spotted alfalfa aphid, and Aphanomyces root rot (Race 1); and moderate resistance to stem nematode. Reaction to blue alfalfa aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: _____ Date Submitted 11/1/98

Experimental designations: FG 3G56

Select

1. Select is a synthetic variety with 120 parent plants. Plants were selected for multifoliolate expression and resistance to one or more of the following pests: stem nematode, root knot nematode, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing Select were Leafmaster (25%), Stamina (25%), DK 140 (12.5%), Millennium (12.5%), Dividend (12.5%), and Acheiva (12.5%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1995. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (7%), *M.varia* (28%), Turkistan (5%), Flemish (55%) and Chilean (2%).

2. This variety is adapted to the Winterhardy Intermountain United States. This variety has been tested in Idaho and Oregon. It will be used in the Winterhardy Intermountain United States.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WS3 checks. Flower color (Syn2) is 89% purple, 7% variegated, 2% white, 2% yellow, with a trace of cream. Select has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot and stem nematode; resistance to Verticillium wilt, Aphanomyces root rot (Race1), spotted alfalfa aphid, pea aphid and northern root knot nematode, and moderate resistance to blue alfalfa aphid.

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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1998.

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.

9. Variety Name: Select Date Submitted 11/1/98

Experimental designations: FG 3G107

FG 3L115

1. FG 3L115 is a synthetic variety with 110 parent plants. Plants were selected for multifoliolate expression and resistance to one or more of the following pests: stem nematode, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing FG 3L115 were LegenDairy (25%), MultiKing 1 (25%), Excalibur II (12.5%), Prism II (12.5%), Dividend (12.5%), and Acheiva (12.5%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1994. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (6%), *M.varia* (27%), Turkistan (3%), Flemish (57%) and Chilean (4%).

2. This variety is adapted to the Winterhardy Intermountain United States. This variety has been tested in Idaho and Oregon. It will be used in the Winterhardy Intermountain United States.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WS3 checks. Flower color (Syn2) is 89% purple, 9% variegated and 2% white, with a trace of yellow and cream. FG 3L115 has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, stem nematode and spotted alfalfa aphid; resistance to Verticillium wilt, pea aphid and northern root knot nematode. Reaction to blue alfalfa aphid and Aphanomyces root rot (Race 1) 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 5 years, respectively.

6. Certified seed will be marketed in 1998.

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.

9. Variety Name: _____ Date Submitted 11/1/98

Experimental designations: FG 3L115

FG 4G109

1. FG 4G109 is a synthetic variety with 120 parent plants. Plants were selected for multifoliolate expression and resistance to one or more of the following pests: stem nematode, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing FG 4G109 were LegenDairy (25%), Excalibur II (25%), Dividend (25%), and Acheiva (25%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1995. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak (7%), *M. varia* (28%), Turkistan (5%), Flemish (55%) and Chilean (2%).

2. This variety is adapted to the Winterhardy Intermountain United States. This variety has been tested in Idaho and Oregon. It will be used in the Winterhardy Intermountain United States.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WS3 checks. Flower color (Syn2) is 89% purple, 8% variegated, 1% white and 2% yellow,with a trace of cream. FG 4G109 has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, pea aphid and stem nematode; resistance to Verticillium wilt, Aphanomyces root rot (Race 1), spotted alfalfa aphid and moderate resistance to blue alfalfa aphid and northern root knot nematode.

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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1998.

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.

9. Variety Name: _____ Date Submitted 11/1/98

Experimental designations: FG 4G109

Pinnacle

1. Pinnacle is a synthetic variety with 100 parent plants. Plants were selected for multifoliolate expression and resistance to one or more of the following pests: stem nematode, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing Pinnacle were LegenDairy (25%), MultiKing 1 (25%), Excalibur II (12.5%), Prism II (12.5%), Dividend (12.5%), and Acheiva (12.5%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1994. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (6%), *M.varia* (27%), Turkistan (3%), Flemish (57%) and Chilean (4%).

2. This variety is adapted to the Winterhardy Intermountain United States. This variety has been tested in Idaho and Oregon. It will be used in the Winterhardy Intermountain United States.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WS3 checks. Flower color (Syn2) is 90% purple, 9% variegated, 1% white and a trace of yellow and cream. Pinnacle has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, stem nematode and spotted alfalfa aphid; resistance to Verticillium wilt, pea aphid and northern root knot nematode. Reaction to blue alfalfa aphid and Aphanomyces root rot (Race 1) 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 5 years, respectively.

6. Certified seed will be marketed in 1998.

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.

9. Variety Name: Pinnacle Date Submitted 11/1/98

Experimental designations: FG 3L171

FG 4G65

1. FG 4G65 is a synthetic variety with 11 parent clones. Parents were selected for forage yield, persistence, forage quality, rapid recovery after cutting, and multifoliolate expression from two-and three-year-old Wisconsin breeding nurseries. Parents trace to breeding populations selected for multifoliate expression and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Verticillium wilt, anthracnose (Race 1), Leptosphaerulina leaf spot, pea aphid and spotted alfalfa aphid. Recurrent phenotypic selection was used. Germplasm sources used in developing FG 4G65 were: DK 127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 was produced near Nampa, ID in 1995, harvested in total and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Iowa and Minnesota.

3. Fall dormancy of this variety is similar to the FD4 checks and winter survival of this variety is similar to WS1 checks. Flower color in the Syn2 is 75% purple and 25% variegated, with a trace of cream, white, and yellow. FG 4G65 has high multifoliate leaf expression.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, spotted alfalfa aphid, Phytophthora root rot and Aphanomyces root rot (Race 1); resistance to Verticillium wilt; and moderate resistance to stem nematode and pea aphid. Reaction to blue alfalfa aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: _____ Date Submitted 11/1/98

Experimental designations: FG 4G65

Rebound

1. Rebound is a synthetic variety with 17 parent clones. Parents were selected for forage yield, persistence, forage quality, rapid recovery after cutting, and multifoliolate expression from two-and three-year-old Wisconsin breeding nurseries. Parents trace to breeding populations selected for multifoliate expression and resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1), Verticillium wilt, anthracnose (Race 1), Leptosphaerulina leaf spot, pea aphid and spotted alfalfa aphid. Recurrent phenotypic selection was used. Germplasm sources used in developing Rebound were: DK 127 (25%), Lightning (20%), LegenDairy 2.0 (15%), Rushmore (10%), Excalibur II (10%), 5262 (10%), Magnum III (5%) and G2852 (5%). Syn1 was produced near Nampa, ID in 1995, harvested in total and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (6%), Ladak (4%), *M. varia* (32%), Turkistan (3%), Flemish (52%), and Chilean (3%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Iowa and Minnesota.

3. Fall dormancy of this variety is similar to the FD4 checks and winter survival of this variety is similar to WS1 checks. Flower color in the Syn2 is 68% purple and 32% variegated, with a trace of cream, white, and yellow. Rebound has high multifoliate leaf expression.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, and Aphnomyces root rot (Race 1); resistance to pea aphid, and spotted alfalfa aphid; and moderate resistance to stem nematode. Reaction to blue alfalfa aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: Rebound Date Submitted 11/1/98

Experimental designations: FG 4G73

ZAINO

1. Zaino is a synthetic variety with 175 parent plants. Plants were selected for persistence in old nurseries and yield trials. Germplasm sources used in developing Zaino were Coronado (66%), DK189 (11%), FG 9T78 (15%) and FG 9L400 (8%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1995. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M. falcata* (1%), Ladak (1%), *M. varia* (4%), Turkistan (12%), Flemish (6%), Chilean (10%), Peruvian (1%), Indian (20%), African (40%), and unknown (5%).

2. This variety is adapted to Moderately Winterhardy Intermountain and Southwest United States. This variety has been tested in Idaho and California. It will be used in the Moderately Winterhardy Intermountain and Southwest United States.

3. This variety has fall dormancy similar to FD 9 checks. Flower color (Syn2) is 100% purple.

4. This variety has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid and spotted alfalfa aphid; resistance to Verticillium wilt, stem nematode and blue alfalfa aphid; moderate resistance to anthracnose (Race 1); 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

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

9. Variety Name: Zaino Date Submitted 11/1/98

Experimental designations: FG 9T97

TMF 4355LH

1. TMF 4355LH is a synthetic variety with 25 parent plants. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction and pest resistance from several breeding populations previously selected for 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) and potato leafhopper. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars and germplasm releases: Rushmore (30%), DK133 (18%), Sterling (15%), Pacesetter (12%), DK121HG (10%), Legend (6%) and the germplasm releases- 81IND-2, KS108GH5, and KS94GH6 (3% each). Registration of the germplasm release populations were published in Crop Science. Breeder seed (Syn 2) was produced near Nampa, ID in 1996, harvested in total from all parent plants and bulked. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak(5%), *M. varia* (22%), Turkistan (4%), Flemish (55%), Chilean (2%) and Unknown (9%).

2. This variety is adapted to the North Central United States and intended for use in the North Central United States. It has been tested in Wisconsin, Illinois and Minnesota.

3. Fall dormancy of this variety is similar to the FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 58% purple and 42% variegated, with a trace of cream, white, and yellow.

4. This variety has high resistance to anthracnose (Race 1), bacterial wilt, Fusarium wilt, Phytophthora root rot, and potato leafhopper; resistance to Verticillium wilt and Aphanomyces root rot (Race 1); and moderate resistance to stem nematode and pea aphid. Reaction to blue alfalfa aphid, spotted alfalfa aphid 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1996. 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 5 years, respectively.

6. Certified seed will be marketed in 1999.

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

8. The information in this application can not be forwarded to the Plant Variety Protection office.

9. Variety Name: TMF 4355LH Date Submitted 11/1/98

Experimental designations: FG 4R30

Pristine

1. Pristine is a synthetic variety with 16 parent clones. Plants were selected based on clonal and/or progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, multifoliolate leaf expression, and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (race 1), and spotted aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. Parent clones trace to the following varieties: 5454, DK127, Sterling, Excalibur II, 330 , Rushmore , and LegenDairy . Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (4%), *M.varia* (25%), Turkistan (5%), Flemish (59%), and Chilean (4%).

2. This variety is adapted to the North Central U.S. This variety has been tested in Wisconsin, Minnesota and Iowa and will be used in the northern U.S.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WH2 checks. Flower color (Syn2) is 89% purple and 11% variegated with a trace of yellow, cream and white. Pristine has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (race 1), and Phytophthora root rot; resistance to Verticillium wilt, pea aphid, Aphanomyces root rot (race 1) and spotted alfalfa; and moderate resistance to stem nematode. Reaction to blue alfalfa aphid and root knot nematode have 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 1997.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: Pristine

Experimental designations: FG 4L68

Date NA&MLVRB first accepted this variety: January 1998

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

Accord

1. Accord is a synthetic variety with 111 parent plants. Parents were selected from a cross between two FG breeding lines for multifoliolate leaf expression and combined resistance to Aphanomyces root rot (race 1) and Phytophthora root rot . One line traces to selections from Encore made from a four year old Wisconsin yield trial and the other to a winterhardy multifoliolate population selected for vigor, persistence, forage quality 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). Phenotyic recurrent selection was used. Parentage traces to the following cultivars: Encore (60%), LegenDairy (20%), Pacesetter (5%), Prism (5%), Alfaleaf (5%), and DK133 (5%). Approximate germplasm source contributions are: *M. falcata*-5%, Ladak-6%, *M. varia*-29%, Turkistan-3%, Flemish-53%, and Chilean-4%.

2. Accord is adapted to the North Central and East Central regions of the U.S. and intended for use in the northern and central U.S. It has been tested in Wisconsin, Minnesota, Iowa and Pennsylvania.

3. Fall dormancy of Accord is similar to Saranac and winter survival of this variety is similar to Vernal. Flower color in the Syn2 is 68% purple, 32% variegated, and a trace of white, cream and yellow. Accord has greater multifoliate leaf expression than Multiking I.

4. Accord has high resistance to bacterial wilt, anthracnose (race 1), Phytophthora root rot, pea aphid, and Fusarium wilt; resistance to Verticillium wilt and Aphanomyces root rot (race 1); and moderate resistance to northern root knot nematode and stem nematode. Reaction to blue alfalfa aphid and spotted 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires the consent of the breeder. Breeder seed was produced at Caldwell, Idaho in 1992. 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 1995.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: Accord

Experimental designations: FG 3B44

Date NA&MLVRB first accepted this variety: January 1995

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

Extend

1. Extend is a synthetic variety with 10 parent clones. Parents were selected based on clonal and/or Px progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from several breeding populations previously selected for 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) and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars: Encore (20%), Prism (20%), Alfaleaf (20%), DK133 (15%), Achieva (15%), and Pacesetter (10%).Approximate germplasm source contributions are: *M. falcata*-5%, Ladak-5%, *M. varia*-27%, Turkistan-3%, Flemish-57%, and Chilean-3%.

2. Extend is adapted to the North Central and East Central regions of the U.S. and intended for use in the northern and central U.S. It has been tested in Wisconsin, Minnesota and Pennsylvania.

3. Fall dormancy of Extend is similar to Saranac and winter survival of this variety is similar to Vernal. Flower color in the Syn2 is 73% purple, 27% variegated, and a trace of white, cream and yellow. Extend has greater multifoliate leaf expression than Multiking I.

4. Extend has high resistance to bacterial wilt, anthracnose (race 1), Phytophthora root rot, and pea aphid; and resistance to Aphanomyces root rot (race 1), Fusarium wilt, Verticillium wilt, northern root knot nematode and stem nematode. Reaction to blue alfalfa aphid and spotted alflafa 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires the consent of the breeder. Breeder seed was produced at Caldwell, Idaho in 1992. 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 1995.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: Extend

   Experimental designations: FG 3B05

   Date NA&MLVRB first accepted this variety: January 1995

   Dates previous amendments were accepted: none

   Date this amendment submitted: November 1, 1998

DK180ML

1. DK180ML is a synthetic variety with 202 parent plants. Parents were selected for seed yield, multifoliolate leaf expression, late summer growth and resistance to one or more of the following diseases: Phytophthora root rot, anthracnose (race 1), Fusarium wilt and Verticillium wilt. Phenotypic recurrent selection was used. Parents trace to the varieties Parade, Kern, FG 6J92 and FG 6J95. Approximate germplasm source contributions are: *M.falcata* (1%), Ladak (2%), *M.varia* (5%), Turkistan (15%), Flemish (3%), Chilean (11%), Peruvian (1%), Indian (20%), African (35%) and unknown (7%).

2. This variety is adapted to the Southwest U.S. This variety has been tested in California and Idaho and will be used in the Southwest U.S.

3. This variety has fall dormancy similar to FD8 checks. Flower color (Syn2) is 100% purple with a trace of variegated, yellow, cream and white.

4. This variety has high resistance to Fusarium wilt, anthracnose (race 1), Phytophthora root rot, pea aphid, spotted alfalfa aphid and blue alfalfa aphid; resistance to Verticillium wilt, southern root knot nematode and northern root knot nematode; and moderate resistance to stem nematode and bacterial wilt. Reaction to Aphanomyces root rot (race 1) 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 1997.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: DK180ML

Experimental designations: FG 8L412

Date NA&MLVRB first accepted this variety: January 1997

Dates previous amendments were accepted: January 1998

Date this amendment submitted: November 1, 1998

Reno

1. Reno is a synthetic variety with 74 parent plants. Parent plants were selected for multifoliolate expression and resistance to one or more of the following pests: stem nematode, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing Reno were FG 3B60 (31.5%), MultiKing (31%), Dividend (12.5%), LegenDairy (12.5%) and Acheiva (12.5%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1994. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (6%), *M.varia* (27%), Turkistan (3%), Flemish (57%) and Chilean (4%).

2. This variety is adapted to the Winterhardy Intermountain U.S. This variety has been tested in Idaho, Colorado and Oregon. It will be used in the winterhardy Intermountain U.S.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WH3 checks. Flower color (Syn2) is 99% purple and 1% white with a trace of variegated, yellow and cream. Reno has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (Race 1), Phytophthora root rot and stem nematode; resistance to Verticillium wilt, pea aphid;and Aphanomyces root rot spotted alfalfa aphid; and moderate resistance to root knot nematode (*M. hapla*). Reaction to 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 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 near Nampa, Idaho in 1994. 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 1998.

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

8. The information in this application may be forwarded to the PVP office.

9. Variety name: Reno

Experimental designations: FG 3L104

Date NA&MLVRB first accepted this variety: January 1998

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

NK Matrera 8

1. NK Matrera 8 is a synthetic variety with 120 parent plants. Parent plants were selected for persistence and resistance to one or more of the following: Phytophthora root rot, Verticillium wilt, spotted alfalfa aphid. Germplasm sources used in developing NK Matrera 8 were Sundor (20%), WL 516 (24%), Yolo (14%), Diamond (14%) and DK189 (28%). Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (1%), Ladak (2%), *M.varia* (5%), Turkistan (15%), Flemish (3%), Chilean (11%), Peruvian (1%), Indian (20%), African (35%) and unknown (7%).

2. This variety is adapted to the Southwest and Moderately Winterhardy Intermountain areas of the U.S.. This variety has been tested in Idaho, California and Argentina. It will be used in the Southwestern U.S. and Argentina.

3. This variety has fall dormancy similar to FD8 checks. Flower color (Syn2) is 100% purple.

4. This variety has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid, spotted alfalfa aphid and blue alfalfa aphid; moderate resistance to bacterial wilt, Verticillium wilt and stem nematode; and low resistance to anthracnose (Race 1). 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 1998.

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

8. The information in this application may be forwarded to the PVP office.

9. Variety name: NK Matrera 8

Experimental designations: FG 8G521; FG Arg 96-9

Date NA&MLVRB first accepted this variety: January 1998

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

Sendero

1. Sendero is a synthetic variety with 140 parent plants. Parent plants were selected for seed yield, multifoliolate expression and resistance to one or more of the following pests: anthracnose, Fusarium wilt, Verticillium wilt and Phytophthora root rot. Germplasm sources used in developing Sendero were DK166 (70%) and Tahoe (30%). Breeder seed (Syn 1) was produced near Nampa, Idaho in 1992. Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (1%), Ladak (10%), *M.varia* (6%), Turkistan (20%), Flemish (11%), Chilean (14%), Peruvian (1%), Indian (17%), African (17%) and unknown (3%).

2. This variety is adapted to Moderately Winterhardy Intermountain and Winterhardy Mountain areas of the U.S. This variety has been tested in Idaho and California. It will be used in moderate winterhardy regions of the Intermountain Western U.S.

3. This variety has fall dormancy similar to FD6 checks. Flower color (Syn2) is 100% purple.

4. This variety has high resistance to Fusarium wilt, anthracnose (Race 1), Phytophthora root rot, pea aphid, spotted alfalfa aphid; and resistance to Verticillium wilt, blue alfalfa aphid and root knot nematode (M. hapla); and moderate resistance to bacterial wilt and stem nematode. Reaction to Aphanomyces root rot 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1992. 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 1998.

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

8. The information in this application may be forwarded to the PVP office.

9. Variety name: Sendero

Experimental designations: FG 6B175

Date NA&MLVRB first accepted this variety: January 1998

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

Plumas

1. Plumas is a synthetic variety with 114 parent plants. Plarent plants were selected for multifoliolate expression and resistance to one or more of the following pests: Verticillium wilt, stem nematode, root knot nematode and Phytophthora root rot. Phenotypic recurrent selection was used in the development of this variety. Parent plants trace to the varieties FG 3B60 and Extend. Approximate germplasm source contributions are: *M.falcata* (4%), Ladak (4%), *M.varia* (27%), Turkistan (3%), Flemish (58%), and Chilean (4%).

2. This variety is adapted to the Winterhardy Intermountain U.S. This variety has been tested in Idaho, Colorado and Montana and will be used in the Winterhardy Intermountain U.S.

3. This variety has fall dormancy similar to FD4 checks. Flower color (Syn2) is 88% purple and 12% variegated with a trace yellow, cream and white. Plumas has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (race 1), Phytophthora root rot, and stem nematode; resistance to Verticillium wilt, Aphanomyces root rot (race 1), pea aphid, and spotted alfalfa; and moderate resistance to root knot nematode. Reaction to 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 of Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 1997.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: Plumas

Experimental designations: FG 3L102

Date NA&MLVRB first accepted this variety: January 1997

Dates previous amendments were accepted: None

Date this amendment submitted: November 1, 1998

DK140

1. DK140 is a synthetic variety with 18 parent clones. Plants were selected based on clonal and/or progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, multifoliolate leaf expression, and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (race 1), and spotted aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. Parent clones trace to the following varieties: Sterling, Excalibur II, 330 , Rushmore , and LegenDairy . Approximate germplasm source contributions are: *M.falcata* (3%), Ladak (4%), *M.varia* (25%), Turkistan (5%), Flemish (59%), and Chilean (4%).

2. This variety is adapted to the North Central U.S. This variety has been tested in Wisconsin, Minnesota and Iowa and will be used in the northern U.S.

3. This variety has fall dormancy similar to FD4 checks and winter survival similar to WH2 checks. Flower color (Syn2) is 91% purple and 9% variegated with a trace of yellow, cream and white. DK140 has high multifoliolate leaf expression.

4. This variety has high resistance to bacterial wilt, Fusarium wilt, anthracnose (race 1), Phytophthora root rot, spotted alfalfa aphid and Aphanomyces root rot (race 1); resistance to Verticillium wilt, pea aphid; and moderate resistance to stem nematode, blue alfalfa aphid and northern root knot nematode.

5. Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires consent of the breeder. Breeder seed was produced near Nampa, Idaho in 1994. 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 1997.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: DK140

Experimental designations: FG 3L20

Date NA&MLVRB first accepted this variety: January 1997

Dates previous amendments were accepted: January 1, 1998

Date this amendment submitted: November 1, 1998

DK143

1. DK143 is a synthetic variety with 11 parent clones. Parents were selected based on clonal and/or Px progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from several breeding populations previously selected for 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) and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars: Encore (20%), Prism (20%), Alfaleaf (20%), DK133 (15%), Achieva (15%), and Pacesetter (10%). Approximate germplasm source contributions are: *M. falcata*-5%, Ladak-5%, *M. varia*-27%, Turkistan-3%, Flemish-57%, and Chilean-3%.

2. DK143 is adapted to the North Central and East Central regions of the U.S. and intended for use in the northern and central U.S. It has been tested in Wisconsin, Minnesota, Iowa and Pennsylvania.

3. Fall dormancy of DK143 is similar to Ranger and winter survival of this variety is similar to Vernal. Flower color in the Syn2 is 81% purple, 19% variegated, and a trace of white, cream and yellow. DK143 has greater multifoliate leaf expression than Multiking I.

4. DK143 has high resistance to bacterial wilt, anthracnose (race 1), pea aphid, and Phytophthora root rot; resistance to Aphanomyces root rot (race 1),Fusarium wilt, Verticillium wilt, and northern root knot nematode; and moderate resistance to stem nematode. Reaction to blue alfalfa aphid and spotted 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires the consent of the breeder. Breeder seed was produced at Caldwell, Idaho in 1992. 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 1995.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: DK143

Experimental designations: FG 3B12

Date NA&MLVRB first accepted this variety: January 1995

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

DK127

1. DK127 is a synthetic variety with 161 parent plants. Parents were selected from a cross between two FG breeding lines for multifoliolate leaf expression and combined resistance to Aphanomyces root rot (race 1) and Phytophthora root rot . One line traces to selections from a four year old Minnesota yield trial and the other to a winterhardy multifoliolate population selected for vigor, persistence, forage quality 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). Phenotyic recurrent selection was used. Parentage traces to the following cultivars: Pacesetter (35%), LegenDairy (20%), Encore (20%), Alfaleaf (15%), Prism (5%), and DK133 (5%). Approximate germplasm source contributions are: *M.falcata*-6%, Ladak-6%, *M.varia*-30%, Turkistan-3%, Flemish-52%, and Chilean-3%.

2. DK127 is adapted to the North Central and East Central regions of the U.S. and intended for use in the northern and central U.S. It has been tested in Wisconsin, Minnesota, Iowa and Pennsylvania.

3. Fall dormancy of DK127 is similar to Ranger and winter survival of this variety is similar to Vernal. Flower color in the Syn2 is 79% purple, 21% variegated, and a trace of white, cream and yellow. DK127 has greater multifoliolate leaf expression than Multiking I.

4. DK127 has high resistance to bacterial wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (race 1), spotted alfalfa aphid and pea aphid; resistance to Verticillium wilt, Fusarium wilt, northern root knot nematode and stem nematode; and moderate resistance to blue alfalfa aphid.

5. Seed increase is on a limited generation basis with one generation of breeder and two generations of foundation and certified seed classes. Breeder (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3 foundation seed requires the consent of the breeder. Breeder seed was produced at Caldwell, Idaho in 1992. 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 1995.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: DK127

Experimental designations: FG 3B37

Date NA&MLVRB first accepted this variety: January 1995

Dates previous amendments were accepted: January 1996

Date this amendment submitted: November 1, 1998

1. DK166 is a synthetic variety with 184 parent plants which were selected from populations that were developed by phenotypic recurrent selection and strain crossing. Parent plants were selected for multifoliolate expression and for resistance to one or more of the following pests: anthracnose (race 1), Verticillium wilt, Phytopthora root rot, blue alfalfa aphid, and spotted alfalfa aphid. The following germplasm sources were used in the development of DK166: Express, Condor, Valley +, VS-626, Shenandoah, VS-481, and Mede. Approximate germplasm source contributions are as follows: M. falcata (1%), Ladak (2%), M. varia (8%), Turkistan (12%), Flemish (30%), Chilean (11%), Peruvian (1%), Indian (10%), African (19%), and unknown (6%).

2. DK166 is adapted to the Sacramento Valley and San Joaquin Valley of California, the Mesilla Valley and San Juan Valley of New Mexico, and to Idaho, and is intended for use in the Sacramento Valley and similar high desert valleys of California, Nevada, Idaho, Arizona, and New Mexico. DK166 has been tested in California, Idaho, and New Mexico.

3. DK166 is a moderately dormant variety with fall dormancy similar to Lahonton. Flower color observed in the Syn.1 generation is approximately 99% purple, 1% variegated, and a trace of white, cream, and yellow.

4. DK166 has high resistance to anthracnose (race 1), Phytopthora root rot, Fusarium wilt, pea aphid, and spotted alfalfa aphid, with resistance to blue alfalfa aphid and southern root knot nematode. It has moderate resistance to bacterial wilt and Verticillium wilt. Reaction to stem nematode, northern root knot nematode, and Aphanomyces root rot has not been adequately tested.

5. Seed increase 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 the consent of the breeder. Breeder seed was produced under cage isolation at Woodland, CA in 1989. 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.

6. Certified seed of DK166 will be available in 1993.

7. No decision has been made regarding Plant Variety Protection.

8. This information can be forwarded to the PVP office.

9. Variety name: DK166

Experimental designations: C/W 2677 ; VS-957

Date NA&MLVRB first accepted this variety: January 1993

Dates previous amendments were accepted: January 1995

Date this amendment submitted: November 1, 1998

8498

1. 8498 is a synthetic variety with 10 parent clones. Parents were selected based on clonal and/or polycross progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from several breeding populations previously selected for 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) and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars: Encore (20%), Prism (20%), Alfaleaf (20%), DK133 (15%), Achieva (15%), and Pacesetter (10%). Approximate germplasm source contributions are: *M. falcata*-5%, Ladak-5%, *M. varia*-27%, Turkistan-3%, Flemish-57%, and Chilean-3%.

2. 8498 is adapted to the North Central and East Central regions of the U.S. and intended for use in the northern and central U.S. It has been tested in Wisconsin, Minnesota, Iowa and Pennsylvania.

3. Fall dormancy of 8498 is similar to FD3 checks and winter survival of this variety is similar to WS2 checks. Flower color in the Syn2 is 64% purple, 36% variegated, and a trace of white, cream and yellow. 8498 has high multifoliolate leaf expression.

4. 8498 has high resistance to bacterial wilt, anthracnose (race 1), Phytophthora root rot, pea aphid, and Fusarium wilt; and resistance to Aphanomyces root rot (race 1), Verticillium wilt, and spotted alfalfa aphid; and moderate resistance to northern root knot nematode and stem nematode. Reaction to 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 (Syn1), foundation (Syn2 or Syn3), and certified (Syn3 or Syn4) classes will be recognized. Production of Syn3foundation seed requires the consent of the breeder. Breeder seed was produced at Caldwell, Idaho in 1992. 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 1996.

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

8. The information in this application can be forwarded to the PVP office.

9. Variety name: 8498

Experimental designations: FG 3B18

Date NA&MLVRB first accepted this variety: January 1996

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

NK Vaquera 9

1. NK Vaquera 9 is a synthetic variety with 145 parent plants. Parent plants were selected for persistence and vigor from old forage trials. Germplasm sources used in developing NK Vaquera 9 were Coronado (46%), DK189 (22%), Beacon (18%) and 9L900 (14%). Seed was harvested in total on all parents and bulked to form breeder seed. Approximate germplasm source contributions are: *M.falcata* (1%), Ladak (3%), *M.varia* (4%), Turkistan (12%), Flemish (6%), Chilean (10%), Peruvian (1%), Indian (18%), African (38%) and unknown (7%).

2. This variety is adapted to the Southwest. This variety has been tested in Idaho, California and Argentina. It will be used in the southwestern US and Argentina.

3. This variety has fall dormancy similar to FD9 checks. Flower color (Syn2) is 100% purple.

4. This variety has high resistance to Fusarium wilt, Phytophthora root rot, pea aphid and spotted alfalfa aphid; resistance to Verticillium wilt, stem nematode and blue alfalfa aphid; moderate resistance to anthracnose (race 1) 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 of the breeder. Breeder seed was produced near Nampa, Idaho in 1995. 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 1998.

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

8. The information in this application may be forwarded to the PVP office.

9. Variety name: NK Vaquera 9

Experimental designations: FG 9G515; FG Arg 96-2

Date NA&MLVRB first accepted this variety: January 1998

Dates previous amendments were accepted: none

Date this amendment submitted: November 1, 1998

A9503

1. A9503 is a 113-clone synthetic variety. Parent plants were selected using phenotypic recurrent selection for potato leafhopper tolerance and multifoliate expression in the field, and for resistance to one or more of the following pests: anthracnose (Race 1), aphanomyces root rot (Race 1), bacterial wilt, fusarium wilt, and phytophthora root rot. Parent plants trace to the varieties Achieva, GH-787, and 5333. Approximate germplasm sources are: M. falcata (6%), Ladak (6%), M. varia (27%), Turkistan (4%), Flemish (49%), Chilean (5%) and 3% unknown.

2. A9503 is adapted to, and intended for, use in the east central United States. It has been tested in Indiana, Illinois, Kentucky, Michigan, Ohio, Pennsylvania, Tennessee, and Virginia.

3. Fall dormancy of A9503 is similar to Ranger. Flower color is approximately 97% purple, 3% variegated, and a trace of white, cream, and yellow in the syn-1 generation. Multifoliolate expression is high in autumn growth.

4. A9503 has high resistance to anthracnose (Race 1), bacterial wilt, fusarium wilt, Phytophthora root rot, pea aphid, and aphanomyces root rot (Race 1); resistance to Verticillium wilt and spotted alfalfa aphid; and moderate resistance to stem nematode. It has not been tested for reaction to blue alfalfa aphid or root-knot nematode.

5. See increase is limited to one generation of breeder (syn-1), two generations of foundation (syn-2 or –3), and three generations of certified (syn-2, -3, or –4) classes. Breeder seed was produced in 1995. Length of stand allowed is 2, 3, and 5 years for breeder, foundation, and certified production, respectively. FFR Cooperative will maintain sufficient seedstocks for the life of the variety.

6. Certified seed will be available in 2000.

7. Application will not be made for plant variety protection.

8. Information in this application may be forwarded to the PVP office.

9. Variety Name: Date Submitted: **1/99**
   Experimental Designation: **A9503**

ATTACHMENT G

Variety Description

RC8902 is a medium red clover variety adapted for use in the east central and north central United States. It flowers approximately a day earlier than Arlington and 5 days later than Kenstar. RC8902 has predominately medium pink flowers (43%) with 25% each light and dark pink flowers as well. A small percentage of white and red blossoms, 5% and 2% respectively, are also observed. Approximately 78% of its plants exhibit water marks; 72% were classified as centrally marked. RC8902 is resistant to northern and southern anthracnose and powdery mildew.

ATTACHMENT G

Variety Description

Royal Red is a medium red clover variety adapted for use in the east central and north central United States. It flowers approximately 4 days later than Kenstar, and one day earlier than Arlington. Royal Red has predominately medium (37%) and dark (30%) pink flowers, with 20% light pink and 13% red blossoms also observed. Approximately 83% of its plants exhibit water marks, all of which were classified as centrally marked. Royal Red is resistant to northern and southern anthracnose and powdery mildew.

ATTACHMENT G

Variety Description

RC8501 is a medium red clover variety adapted for use in the east central and north central United States. It flowers approximately the same time as Arlington and a few days later than Kenstar. RC8501 has predominately medium pink flowers (53%), with 17% and 27% light and dark pink flowers, respectively. A small percentage (3%) of red blossoms are also observed. Approximately 83% of its plants exhibit watermarks; 53% were classified as centrally marked. RC8501 is resistant to northern and southern anthracnose and powdery mildew.

Salado
November 19,1998

1. Salado is a synthetic variety with 200 parent clones. Parent clones trace to two populations selected for increased germination and forage yield under saline (NaCl) stress. The basis of selection was a modification of the procedures outlined in the development of AZ-Germ Salt II (Crop Science vol. 29:0493 (1989)) and AZ90NDC-ST (Crop science vol. 31, p 1098 (1991)). The modification being that the two procedures were used in tandem, with increasing levels of salinity for each successive generation.

   Phenotypic recurrent selection was used. Final selections were made from greenhouse plants subjected to germination and post-germination salt stress.

   Parentage traces to Mesa Sirsa (50%) and other non-dormant experimental cultivars (50%).

   Approximate germplasm source contributions are:
   M. falcata (0%), Ladak (0%), M. varia (0%), Turistan (0%), Flemish (0%), Chilean (0%), Peruvian (0%), Indian (50%), African (0%), and unknown (50%). Breeder seed (Syn 1) was produced under field isolation near Kingsburg, CA in 1994.

2. Area of intended use is Central and Southern California, and the lower elevations of Arizona and New Mexico.
   Area of adaptation is southwest regions of U.S.

3. Fall dormancy is similar to Cuf 101. Flower color is approximately 98% purple and 1% variegated with less than 1% yellow, 0% cream and white.

4. Salado has high resistance to Fusarium wilt, blue alfalfa aphid, and southern root knot nematode; resistance to spotted alfalfa; moderate resistance to pea aphid, stem nematode and lepto leaf spot; low resistance to anthracnose and Phytophthora root rot, tolerant to salt (NaCl) at germination; and susceptible to Verticillium wilt. Salado has not been tested for resistance to bacterial wilt, aphanomyces and other species of root knot nematode.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 3) seed classes. Certified may be produced from either breeder or foundation classes. A 1, 3 and 5 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production, outside the area of adaptation is limited to single-season production (non-overwintering). Second year of production may be allowed with inspection and approval by breeder prior to second year production. Breeder seed was produced in 1993. ABI will maintain sufficient stocks for the projected life of the variety.

6. Certified seed will be available in 1998

7. Plant variety protection has been applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: Salado Date submitted November 19, 1998

   Experimental designations: ZS 9491

AmeriLeaf 721
November 19,1998

1. AmeriLeaf 721 is a synthetic variety with 200 parental clones. Parental trace to non-dormant populations selected for resistance to verticillium wilt, anthracnose, spotted alfalfa aphid, and southern root knot nematode. Parent clones were also selected for large and multifoliolate leaf traits, as well as dark green color.

   Recurrent phenotypic selection was used. Final selections were made from a space plant nursery near Kingsburg, California.

   Parentage traces to Pecos (70%) and non-dormant germplasms (30%).

   Approximate germplasm source contributes are:
   M. falcata (2%), Ladak (1%), M. varia (7%), Turkistan (25%), Flemish (2%), Chilean (15%), Peruvian (1%), Indian (15%), African (2%), and unknown (30%).

2. AmeriLeaf 721 is intended for use in Central and Southern California and the elevations of Arizona and New Mexico where fall dormancies sevens are used. AmeriLeaf 721 is adapted to the Southwest and moderately winterhardy intermountain regions of the U.S.

3. Fall dormancy is similar to Mesilla a fall dormancy 7. Flower color is approximately 98 % purple and 2% variegated and a trace of cream, yellow and white.

4. AmeriLeaf 721 has high resistance to Fusarium wilt, anthracnose (race 1), and spotted alfalfa aphid; resistance to bacterial wilt, Phytophthora root rot, pea aphid, and southern root knot nematode; and moderate resistance to Verticillium wilt, stem nematode, and blue alfalfa aphid. AmeriLeaf 721 also displays a low level of multifoliolate leaf expression. It has not been tested for reaction to Aphanomyces and other species of root knot nematode.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 3) seed classes. Certified may be produced from earlier breeder or foundation classes. A 1, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production, outside the area of adaption is limited to single-season production (Non- overwintering). Second year of production may be allowed with inspection and approval by breeder prior to second year production. Breeder seed was produced in 1995. ABI will maintain sufficient stock for the projected life of the variety.

6. Certified seed will be available in 1998

7. Plant variety protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: AmeriLeaf 721 Date submitted November 19, 1998

   Experimental designations: ZL 9677

AmeriGuard 301

1. AmeriGuard 301 is an 13 clone synthetic cultivar. Parent clones trace to populations derived from a backcrossing program incorporating resistance to potato leafhopper into modern germplasm. These populations used glandular-hair resistant germplasm releases 81 Ind-2, KS 108 GH5 and KS94GH6 as a non-recurrent parent with the recurrent parents tracing to Weevlchek, Vernal, Saranac, Anchor, Kanza, Tempo and Cody approximately (13% each) with 9% unknown. Final selections were made on the basis of resistance to potato leafhopper, bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (races 1 and 2) plus yield and fall dormancy reaction. Recurrent phenotypic selection was used.

   Breeder seed (Syn 1) was produced in 1995 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk. Breeder seed (Syn 2) was produced in South America in 1996

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
4	5	24	7	51	1
Peruvian	**Indian**	**African**	**Arabian**	**Unknown**	
				8	

2. AmeriGuard 301 appears to be adapted to the North Central and East Central regions of the U.S.. Area of intended use is the North Central and East Central Regions of the U.S.. It has been tested in Iowa, Wisconsin and Illinois.

3. Fall dormancy of Ameriguard 301 is similar to Ranger. Flower color of Syn 2 generation is approximately 48% purple, 41% variegated, 5% cream, 4% yellow and 2% white.

4. AmeriGuard 301 has high resistance to bacterial wilt, Fusarium wilt and Phytophthora root rot, resistance to Verticillium wilt and Aphanomyces root rot (race 1) and moderate resistance to pea aphid and low resistance to spotted alfalfa aphid and blue alfalfa aphid. It has moderate resistance to potato leafhopper. It has not been tested for reaction to stem nematode, root knot nematode and anthracnose.

5. Seed increase is limited to two generations of breeder (Syn 1 and 2), and one generation each of foundation (Syn 3) and certified (Syn 4) seed classes. Certified seed may be produced from either breeder or foundation classes. A 2, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed (Syn 1) was produced in 1995. Breeder seed (Syn 2) was produced in 1996 in South America in 1996. ABI will maintain sufficient seed stocks for the life of the variety.

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: AmeriGuard 301 Date Submitted: November 1998

   Experimental designations: ZH 9549

ZC 9544

1. ZC 9544 is a 173 clone synthetic cultivar. Parent clones trace to 76 populations selected for resistance to the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1) and Aphanomyces root rot (race 1). Phenotypic recurrent selection was used. Final selections were made from two-year old space plant selection nurseries near Napier, IA, Livingston and Marshfield, WI based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases, and fall dormancy reaction.

   Breeder seed (Syn 1) was produced in 1995 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk.

   Parentage traces to ABI 9042 (12%), AP 8939, GH 755 and 2444 (10% each), Avalanche, TMF Generation, AP 8630, AP 8835, ABI 9134, Prism, AP 8931, Rustler II, ABI 9131, ABI 9135, ABI 9129, ABI 9133, ABI 9142, Accolade, Class, Encore, Jewel, and Achieva (3% each) with 4% from numerous other sources.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
4	5	20	14	44	6

Peruvian	Indian	African	Arabian	Unknown
7				

2. ZC 9544 appears to be adapted to the North Central and East Central regions of the U.S.. It is intended for use in the North Central and East Central regions of the U.S.. It has been tested in Iowa, Wisconsin and Illinois.

3. Fall dormancy of ZC 9544 is similar to Saranac. Flower color of Syn 2 generations is approximately 74% purple and 26% variegated with a trace of cream, yellow and white.

4. ZC 9544 has high resistance to bacterial wilt, Verticillium wilt, Fusarium wilt, anthracnose (race 1) and Phytophthora root rot, resistance to Aphanomyces root rot (race 1), moderate resistance to pea aphid and blue alfalfa aphid and low resistance to spotted alfalfa aphid. It has not been tested for reaction to stem nematode and root knot nematode.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 2, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1995. ABI will maintain sufficient seed stocks for the life of the variety.

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date Submitted: November 1998

   Experimental designations: ZC 9544

Yielder

1. Yielder is a 16 clone synthetic cultivar. Parent clones trace to 10 populations selected for resistance to the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1) and Aphanomyces root rot (race 1) plus two additional isolates. Phenotypic recurrent selection was used. Final selections were made form two-year old space plant selection nurseries near Napier, Iowa based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases, fall dormancy reaction and multileaf expression.

   Breeder seed (Syn 1) was produced in 1995 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk.

   Parentage traces to Garst 645, Stine 9227, Dawn, Aggressor, Venture, Legend, Arrow, Clipper, Apollo Supreme, Nordic, AP 8932W and Envy (8% each) with 4% from numerous other sources.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
4	3	19	12	46	8

Peruvian	Indian	African	Arabian	Unknown
5				3

2. Yielder appears to be adapted to the North Central and East Central regions of the U.S.. It is intended for use in the North Central and East Central regions of the U.S.. It has been tested in Iowa, Wisconsin and Illinois.

3. Fall dormancy of Yielder is similar to Ranger. Flower color is approximately 74% purple and 26% variegated with a trace of white, cream and yellow.

4. Yielder has high resistance to bacterial wilt, Verticillium wilt, Fusarium wilt and Phytophthora root rot and resistance to anthracnose (race 1), and pea aphid. It has not been tested for reaction to blue alfalfa aphid, spotted alfalfa aphid, stem nematode, root knot nematode and Aphanomyces root rot.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 2, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1995. ABI will maintain sufficient seed stocks for the life of the variety.

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: Yielder Date Submitted: November, 1998

   Experimental designations: ZM 9537

ZC 9650

1. ZC 9650 is a 85 clone synthetic cultivar. Parent clones trace to 39 populations selected for resistance to the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1), stem nematode, lesion nematode and Aphanomyces root rot (race 1) plus two additional isolates. Phenotypic recurrent selection was used. Final selections were made from two-year old space plant selection nurseries near Larned, Kansas based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases and fall dormancy reaction.

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

   Parentage traces to Synergy, Allegro and AP 8841 (11% each), ABI 9022, ABI 9042, ABI 9134, 2444, Apollo Supreme, ZX 9345B, ABI 8939, ABI 700, ABI 9042, SuperCuts, TMF Generation and Depend +EV (5% each) with 7% from numerous other sources.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
6	6	17	20	39	8

Peruvian	Indian	African	Arabian	Unknown
4				

2. ZC 9650 appears to be adapted to the Great Plains and East Central regions of the U.S.. It is intended for use in the Great Plains and East Central regions of the U.S..

3. Fall dormancy of ZC 9650 is similar to Archer. Flower color of Syn 2 generation is approximately 76% purple and 24% variegated with a trace of cream, yellow and white.

4. ZC 9650 has high resistance to bacterial wilt, Verticillium wilt, Fusarium wilt, anthracnose (race 1) Phytophthora root rot and pea aphid, moderate resistance to spotted alfalfa aphid and low resistance to northern root knot nematode. It has not been tested for stem nematode, blue alfalfa aphid and Aphanomyces root rot resistance.

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

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date Submitted: November 1998

   Experimental designations: ZC 9650

Interceptor

1. Interceptor is an 18 clone synthetic cultivar. Parent clones trace to populations derived from a backcrossing program incorporating resistance to potato leafhopper into modern germplasm. These populations used glandular-hair resistant germplasm releases 81 Ind-2, KS 108 GH5 and KS94GH6 as a non-recurrent parent with the recurrent parents tracing to Weevlchek, Vernal, Saranac, Anchor, Kanza, Tempo and Cody approximately (13% each) with 9% unknown. Final selections were made on the basis of resistance to potato leafhopper, bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (races 1 and 2) plus yield and fall dormancy reaction. Recurrent phenotypic selection was used.

   Breeder seed (Syn 1) was produced in 1995 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk. Breeder seed (Syn 2) was produced in South America in 1996.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
3	5	26	4	48	2
Peruvian	**Indian**	**African**	**Arabian**	**Unknown**	
				12	

2. Interceptor appears to be adapted to the North Central and East Central regions of the U.S.. It is intended for use in the North Central and East Central regions of the U.S.. It has been tested in Iowa, Wisconsin and Illinois.

3. Fall dormancy of Interceptor is similar to Ranger. Flower color of Syn 2 generation is approximately 51% purple, 39% variegated, 4% cream, 3% yellow and 3% white.

4. Interceptor has high resistance to bacterial wilt, Fusarium wilt, and Phytophthora root rot, resistance to Verticillium wilt and Aphanomyces root rot (race 1), moderate resistance to potato leafhopper, pea aphid and spotted alfalfa aphid and low resistance to blue alfalfa aphid. It has not been tested for reaction to stem nematode, root knot nematode, and anthracnose.

5. Seed increase is limited to two generations of breeder (Syn 1 and 2), and one generation each of foundation (Syn 3) and certified (Syn 4) seed classes. Certified seed may be produced from either breeder or foundation classes. A 2, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed (Syn 1) was produced in 1995. Breeder seed (Syn 2) was produced in 1996 in South America in 1996. ABI will maintain sufficient seed stocks for the life of the variety.

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: Interceptor Date Submitted: November 1998

   Experimental designations: ZH 9548

Power Plant

1. Power Plant is a 74 clone synthetic cultivar. Parent clones trace to 22 populations selected for resistance to the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, anthracnose (race 1) and Aphanomyces root rot (race 1) plus two additional isolates. Phenotypic recurrent selection was used. Final selections were made form two-year old space plant selection nurseries near Napier, Iowa based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases, fall dormancy reaction and multileaf expression.

   Breeder seed (Syn 1) was produced in 1994 on approximately 25 cuttings of each clone transplanted at random and harvested in bulk.

   Parentage traces to Stine 9227, Dawn, Aggrssor, Absolute, Venture, Garst 645 and AP 8922W 9% each and G2833, DK 122, Legend and Crown 7% each with 9% tracing to numerous breeding populations.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
3	4	20	15	45	6

Peruvian	Indian	African	Arabian	Unknown
6				1

2. Power Plant appears to be adapted to the North Central and East Central regions of the U.S.. It is intended for use in the North Central and East Central regions of the U.S. It has been tested in Iowa, Wisconsin and Illinois.

3. Fall dormancy of Power Plant is similar to Ranger. Flower color of Syn 2 generation is approximately 73% purple and 27% variegated with a trace of cream, white and yellow. Winter survival is similar to Ranger, Multileaf expression is moderate (similar to MultiKing I).

4. Power Plant has high resistance to bacterial wilt, Fusarium wilt, and Verticillium wilt, resistance to Aphanomyces root rot (race 1) and anthracnose (race 1), and moderate resistance to pea aphid. It has not been tested for reaction to blue alfalfa aphid, spotted alfalfa aphid, stem nematode, root knot nematode, and Phytophthora root rot.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 2, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified seed classes respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1994. ABI will maintain sufficient seed stocks for the life of the variety.

6. Certified seed will be available in 1999.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: Power Plant Date Submitted: November 1998

   Experimental designations: ZM 9435

TMF 4464

1. TMF 4464 is a synthetic variety with 116 parent clones. Parent clones tract to 19 populations selected for resistance to the following pests: bacterial wilt, fusarium wilt, verticillium wilt, phytophthora root rot, anthracnose (race 1) and aphanomyces (race 1). Phenotypic recurrent selection was used. Final selections were made from two-year-old space-plant selection nurseries near Marshfield and Livingston, WI based on vigor, leafhopper yellowing resistance, leaf disease resistance, winter survival and fall dormancy reaction.

   Parentage traces to Dominator (16%), AP 892W (13%), Cutter (11%), Northstar and AP 9836X (8% each), Trident II, Stine 9227, Aggressor and Garst 645 (6% each), Genesis (5%), Venture and AP 8935W (4% each), AP 8929 (3%), AP 8939 (2%), Dawn (1%) with 1% from several other sources. Breeder seed (Syn 1) was produced on cuttings of the parental clones near Nampa, ID in 1991. An equal number of cuttings (approx. 25) of each parental clone was transplanted at random into an isolated field and harvested in bulk.

   The % of germplasm sources listed below contribute to the major genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
7	7	19	15	37	9

Peruvian	Indian	African	Arabian	Unknown
6	-	-	-	-

2. TMF 4464 appears to be adapted to and is intended for use in the North Central Region of the U.S.. It has been tested in Iowa, Illinois and Wisconsin.

3. Fall dormancy of TMF 4464 is similar to Saranac. Flower color is approximately 77% purple and 23% variegated with a trace of cream, white and yellow.

4. TMF 4464 has high resistance to bacterial wilt, verticillium wilt, fusarium wilt, anthracnose (race 1) and phytophthora root rot, resistance to aphanomyces (race 1) and pea aphid and moderate resistance to stem nematode. It has not been tested for reaction to spotted alfalfa aphid, blue alfalfa aphid and root knot nematode.

5. Seed increase is limited to one generation each of breeder (Syn 1), foundation (Syn 2) and certified (Syn 2 or 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 1,3 and 6 – year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1991. ABI will maintain sufficient seed stocks for the projected life of the variety.

6. Certified seed will be available in 1996.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety name: TMF 4464
   Experimental designations: ABI 9141
   Date NA&MLVRB first accepted this variety: 1997
   Dates previous amendments were accepted:
   Date this amendment submitted: December 1998

Emperor

1. Emperor is a 53 clone synthetic cultivar. Parent clones trace to 39 populations selected for resistance to the following pests: bacterial wilt, fusarium wilt, verticillium wilt, phytophthora root rot, anthracnose (race 1) and aphanomyces (race 1) plus tow additional isolates. Phenotypic recurrent selection was used. Final selections were made from two year old space plant selection nurseries near Livingston and Marshfield, Wisconsin and Napier, Iowa based on yield, winter survival, degree of leafhopper yellowing and stunting, freedom from leaf diseases, fall dormancy reaction and stem protein and digestibility.

   Parentage traces to Innovator +Z (9%), 90MYCVW, ABI 9021, Green Field, A-395, 620, Synergy, Winterstar, ABI 9230, Demand and Wintergreen (6% each), Arrow, ABI 8929, Imperial, Defiant, 2444, TMF Generation, and GH 797 (3% each), with 4% from numerous other sources.

   Estimated % germplasm sources contributing to the genetic constitution of this variety.

M. falcata	Ladak	M. varia	Turkistan	Flemish	Chilean
5	5	23	17	39	6

Peruvian	Indian	African	Arabian	Unknown
4	-	-	-	1

2. Emperor appears to be adapted to and is intended for use in the North Central Region of the U.S.. It has ben tested in Iowa, Wisconsin, Illinois and Michigan.

3. Fall dormancy of Emperor is similar to Saranac. Flower color of Syn 2 generation is approximately 76% purple and 23% variegated with a trace of cream, white and yellow.

4. Emperor has high resistance to bacterial wilt, fusarium wilt, verticillium wilt, anthracnose (race 1), phytophthora root rot and aphanomyces (race 1), resistance to pea aphid and moderate resistance to spotted alfalfa aphid. It has not been tested for reaction to blue alfalfa aphid, stem nematode or root knot nematode.

5. Seed increase is limited to one generation each of breeder (syn 1), foundation (syn 2) and certified (syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 1,3 and 6-year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1995. ABI will maintain sufficient seed stocks for the projected life of the variety

6. Certified seed will be available in 1998.

7. Plant Variety Protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety name: Emperor
   Experimental designations: ZN 9541
   Date NA&MLVRB first accepted this variety: January 1998
   Dates previous amendments were accepted:
   Date this amendment submitted: December 1998

Rodeo (Amended)
November 19, 1998

1. Rodeo is a synthetic variety with 190 parent clones. Parent clones trace to two populations selected for resistance verticillium wilt, Anthracnose (Race 1), spotted alfalfa aphid, blue alfalfa aphid, pea aphid, southern root knot nematode and survival under intense grazing pressure by beef.

   Phenotypic recurrent selection was used. Final selections were made from a grazing survival trial at Tifton Georgia.

   Parentage traces to Cuf 101 (80%), and a non-dormant experimental populations (20%).

   Approximate germplasm source contributions are:
   M. falcata (0%), Ladak (1%), M. varia (2%), Turkistan (11%), Flemish (1%), Chilean (7%), Peruvian (2%), Indian (23%), African (53%), Arabian (0%), and unknown (0%). Breeder seed (Syn 1) was produced under field isolation near Nampa, Idaho in 1993.

2. Rodeo appears to be adapted to and is intended for use in the Southwestern region of the U.S. It has tested in California, and Arizona.

3. Fall dormancy of Rodeo is similar to Moapa 69. Flower color of 98% purple, and 1% variegated and less than 1% cream, yellow and white.

4. Rodeo has high resistance to fusarium wilt; resistance to bacterial wilt, spotted alfalfa aphid, pea aphid, blue alfalfa aphid, stem nematode, phytophthora root rot, and southern root knot nematode; moderate resistance verticillium wilt, and anthracnose (Race 1).

5. Seed increase is limited to one generation each of breeder (Syn 1), Foundation (Syn 2)and certified (Syn 3) seed classes. Certified seed may be produced from either breeder or foundation classes. A 1, 3 and 6 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production outside the area of adaptation, is limited to single-season production (non-overwintering). Second year of production maybe allowed with inspection and approval by breeder prior second year of productions. Breeder seed was produced in 1993. ABI will maintain sufficient stocks for the projected life of the variety.

6. Certified seed will be available in 1997

7. Plant variety protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: Rodeo Date submitted November 19, 1998

   Experimental designations: ZG 9490, ABI 9299 GZ

ABI 9161 (Amended)
(Amended Text in Bold)
November 19,1997

1. ***Arriba*** is a synthetic variety with 250 parent clones. Parent clones trace to two populations selected for resistance to verticillium wilt, anthracnose (Race 1), spotted alfalfa aphid, blue alfalfa aphid, pea aphid, and stem nematode.

   Phenotypic recurrent selection was used. Final selections were made from a space - planted nursery near Nampa, Idaho.

   Parentage traces to Lobo (80%) and ABI 700 (20%).

   Approximate germplasm source contributions are:
   M. falcata (6%), Ladak (6%), M. varia (19%), Turkistan (13%), Flemish (30%), Chilean (9%), Peruvian (2%), Indian (2%), African (1%), and unknown (12%). Breeder seed (Syn 1) was produced under field isolation near Nampa, Idaho in 1991.

2. ***Arriba*** is adapted to the moderately Winterhardy Intermoutain region of the United States. It is intended for use in areas of the Northwest San Joaquin Valley of California, to he Sacramento valley and Coastal Valleys. of Southern California and intermediate and high desert valleys of Southern California, Arizona, Nevada and lower elevations of Idaho, Utah Oregon and Washington. ABI 9161 has been tested in California and Idaho.

3. Fall dormancy is similar to Mesilla. Flower color is approximately 90% purple and 9% variegated with less than 1% cream, yellow and white.

4. ***Arriba*** has high resistance to fusarium wilt, pea aphid, spotted alfalfa aphid, blue alfalfa aphid and **southern root knot nematode**; resistance to anthracnose (Race 1), bacterial wilt, verticillium wilt, phytophthora root rot, and stem nematode; moderate resistance to **northern root knot nematode**.

5. Seed increase is limited to one generation each of breeder (Syn 1), two generations of foundation and two to three generations of certified seed may be produced from either breeder or foundation classes. A 1, 3 an 6 year stand life is permitted on fields producing breeder, foundation and certified classes, respectively. Foundation seed production is limited to the Pacific Northwest. Breeder seed was produced in 1991. ABI will maintain sufficient stocks for the projected life of the variety.

6. Certified seed will be available in 1997

7. Plant variety protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date submitted November 19, 1997

   Experimental designations: ABI 9161, AP 9161

ABI 9352 (Amended)
November 19, 1997

1. ABI 9352 is a synthetic variety with 450 parental clones. Parent clones trace one population selected for resistance to phytophthora root rot, anthracnose, bacterial wilt, fusarium wilt, verticillium wilt, blue alfalfa aphid, spotted alfalfa aphid, pea aphid, stem nematode, and northern root knot nemtaode

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

   Parentage traces to experimental closely related to the variety Archer (100%). Breeder seed (Syn 1) was produced on cuttings of the parental clones near Nampa, Idaho, in 1993. Breeder seed was produced under field isolation.

   Approximate germplasm source contributions are:

   M. falcata (6%), Ladak (6%), M. varia (19%), Turkistan (13%), Flemish (30%), Chilean (9%), Peruvian (2%), Indian (2%), African (1%), and 12% unknown sources

2. ABI 9352 appears to be adapted to and is intended for use in Winterhardy Intermountain region of the U.S.
   It has been tested in Idaho, Washington and California.

3. Fall dormancy of ABI 9352 is similar to Dupuits. Flower color is approximately 88% purple and 11% variegated with less than 1% cream, yellow and white.

4. ABI 9352 has high resistance to verticillium wilt, fusarium wilt, anthracnose, blue alfalfa aphid, and Columbia root knot nematode; resistant to bacterial wilt, phytophthora root rot, spotted alfalfa aphid, stem nematode,and northern root knot nematode; and moderate resistant to the green pea aphid.

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

6. Certified seed will be available in 1997

7. Plant variety protection will not be applied for.

8. This information can be forwarded to the PVP office.

9. Variety Name: _____ Date submitted November 19, 1997

   Experimental designations: ZX 9352, ABI 9352

Variety Description Summary
SW 7410

1. SW7410 is a 134 plant synthetic variety developed from a cross of three populations: SW 7211, SW 7307 and SW 7205. Plants were cross pollinated in a cage using both honey bees and leafcutting bees. Plants were selected from nursery blocks at Mendota, California and a mature hay field near Chowchilla, California. Selection criteria included seed yield, plant vigor, fine stems, short internodes, and resistance to fusarium wilt, spotted alfalfa aphid and southern root knot nematode. Estimated germ plasm sources are: African(42%), Indian(18%), Turkistan(17%), Chilean(6%), Peruvian(6%), Flemish(2%), M.varia(1%), Unknown(8%).

2. SW 7410 alfalfa is adapted to areas in the Sacramento Valley and San Joaquin Valley of California, where varieties of dormancy ratings 7 and 8 are grown. Yield tests are currently underway in California. Use is intended in the Sacramento and San Joaquin Valleys of California.

3. Fall dormancy of SW 7410 is 7. Flower color is 99% purple, 1% variegated bloom and a trace of white bloom in the syn. 3 generation.

4. SW 7410 is highly resistant to fusarium wilt and spotted alfalfa aphid, and resistant to phytophthora root rot, bacterial wilt, southern root knot nematode (M.incognita), blue alfalfa aphid and pea aphid. It is moderately resistant to anthracnose and stem nematode, and has low resistance to the northern root knot nematode (M.hapla). SW 7410 was not tested for aphanomyces root rot (Race 1) or for verticillium wilt.

5. Breeders seed was produced in 1994. S & W Seed Company will maintain sufficient Foundation seed for the projected life of this variety. Under certification, the classes of seed will be Breeder, Foundation and Certified Foundation seed will be produced from Breeders seed and/or Foundation seed. Foundation seed will be used to produce Certified seed. Length of stand life allowed for Foundation and Certified seed is four and six years respectively.

6. Certified seed will be available for sale in the fall of 1999.

7. Application will not be made for P.V.P.

8. This information can be sent to the P.V.P. office.

9. Variety name: SW 7410 Date submitted: November 1, 1998
Experimental designations: SW 7410 .

Magna 601

1. Magna 601 is a 48 clone synthetic variety. Parent plants were selected out of forage yield plots near Clinton, WI. Parent plants were selected from Sutter. These parent plants were evaluated for bacterial wilt, Fusarium wilt, leaf disease, crown health and herbage growth. The percent of germplasm sources are: Turkistan(12), Chilean(4), Peruvian(1) and Unknown(83).

2. Magna 601 is adapted in the Southwestern and Northcentral Region of the United States and intended for use in the Southern and Central regions of the United States. The states where it has been tested are California and Wisconsin.

3. Magna 601 is a moderately dormant, fall dormancy 6 variety. Flower color in the Syn. 2 generation is 95% purple, 5% variegated with trace amounts of cream, white and yellow.

4. Magna 601 has high resistance to Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid; resistance to northern root-knot nematode(M. hapla), stem nematode, southern root-knot nematode(M. incognita), bacterial wilt, anthracnose(Race 1). It has not been tested for Aphanomyces root rot(Race 1), Verticillium wilt. pea aphid and blue alfalfa aphid.

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn.1 seed near Sloughhouse, CA in 1991. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1999.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Magna 601 Date submitted: November 25,1998
Experimental designations: DS9855

Val Verde

1. Val Verde is a 16 clone synthetic variety. 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, maturity, resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, anthracnose(Race1), Verticillium wilt, Aphanomyces root rot(Race1), and spotted alfalfa aphid. Parent plants trace back to Tempo, Apollo Supreme, Thor, WL312, Answer, Teweles Multistrain, and Dairyland Experimentals which trace back to Ranger and Iroquois. Percentage of germplasm sources are: Turkistan(32), Flemish(40) and Chilean(28).

2. Val Verde is adapted in the North Central and Great Plains regions of the United States. It is intended for use in the North and Central region of the United States. The states in which it has been tested are: Wisconsin, Nebraska, Kansas and Oklahoma.

3. Val Verde is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 90% purple, 10% variegated, and trace amounts of cream, white, and yellow.

4. Val Verde has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt, northern root-knot nematode(M. hapla); resistance to Verticillium wilt; moderate resistance to stem nematode and Aphanomyces root rot(Race1). Its reaction to pea aphid, spotted alfalfa aphid, blue alfalfa aphid and anthracnose(Race1) have not been tested.

5. Breeder seed was produced from cuttings of the parent plants planted in cage isolation to produce Syn.1 seed at Sloughhouse, CA in 1988-90. Seed was bulked in equal proportions each year and lots were kept separate. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed(Syn.2 or 3) from either Breeder or Foundation seed. One generation each of Breeder and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified seed will be available spring of 1999.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Val Verde Date submitted: 11/25/98
Experimental designation: DSS5106

DS908

1. DS908 is a 16 clone synthetic variety. 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(Race1), Verticillium wilt, Aphanomyces root rot(Race1), and spotted alfalfa aphid. Parent plants trace back to Tempo, Apollo, Thor, Answer, Teweles Multistrain, and Dairyland Experimentals which trace back to Vernal, Ranger and Iroquois. Percentage of germplasm sources are: M.varia(15), Turkistan(30), Flemish(28) and Unknown(27).

2. DS908 is adapted to the North Central and East Central regions of the United States. It is intended for use in the Central and Northern half of the United States. The states in which it has been tested are: Wisconsin, Minnesota, Iowa and Michigan.

3. DS908 is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 90% purple, 10% variegated, and trace amounts of cream, white, and yellow.

4. DS908 has high resistance to Phytophthora root rot, Fusarium wilt, pea aphid, northern root-knot nematode(M. halpa); resistance to bacterial wilt, Verticillium wilt, stem nematode, spotted alfalfa aphid, moderate resistance to Aphanomyces root rot(Race1). Its reaction to blue alfalfa aphid and anthracnose(Race1) have not been tested.

5. Breeder seed was produced from cuttings of the parent plants planted in cage isolation to produce Syn.1 seed at Sloughhouse, CA in 1988-90. Seed was bulked in equal proportions each year and lots were kept separate. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed(Syn.2 or 3) from either Breeder or Foundation seed. One generation each of Breeder and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified seed will be available spring of 1999.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: _____ Date submitted: 11/25/98
Experimental designation: DS908

Vision

1. Vision is a 101 clone synthetic variety. The parental plants were selected out of saturated soils near Marshfield, WI. Parent plants were selected for the branch rootedness, resistance to bacterial wilt Fusarium wilt, Phytophthora root rot, Aphanomyces root rot(Race 1or2): crown health and excellent herbage growth. Source material trace back to 5252, 5246, 5454, MagnaGraze, Webfoot MPR, Quantum, GH787, Prism, Genesis, Legendairy and Magnum III. The percent of germplasm sources are: M. falcata(5), Ladak(8), M. varia(18), Turkistan(32), Flemish(21), and Unknown(16).

2. Vision is adapted in the North Central Region of the United States and intended for use in the Northern half of the United States. The state where it has been tested is Wisconsin.

3. Vision is a dormant, fall dormancy 3 variety. Flower color in the Syn. 2 generation is 85% purple, 12% variegated, 1% cream, 1%white and 1%yellow.

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

5. Breeder seed was produced from bulking seed of parent plants crossed in a greenhouse near Clinton, WI to produce Syn. 1 seed in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Vision Date submitted: November 25, 1998
Experimental designations: DS9570

6420

1. 6420 is a strain crossed synthetic variety. 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(Race1), Verticillium wilt, Aphanomyces root rot(Race1), and spotted alfalfa aphid. Parent plants trace back to Thor and Answer. Percentage of germplasm sources are: Turkistan(50) and Flemish(50).

2. 6420 is adapted to the North Central and East Central regions of the United States. It is intended for use in the Central and Northern half of the United States. The states in which it has been tested are: Wisconsin, Minnesota and Michigan.

3. 6420 is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 90% purple, 10% variegated, and trace amounts of cream, white, and yellow.

4. 6420 has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt, northern root-knot nematode, resistance to Aphanomyces root rot(Race1), Verticilluim wilt, pea aphid, spotted alfalfa aphid, stem nematode. It has not been tested for blue alfalfa aphid and anthracnose(Race1)..

5. Breeder seed was produced from cuttings of the parent plants planted in cage isolation to produce Syn.1 seed at Sloughhouse, CA in 1990-92. Seed was bulked in equal proportions each year and lots were kept separate. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed(Syn. 3) from Foundation seed. One generation each of Breeder Foundation, and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified seed was available spring of 1999.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: 6420 Date submitted: November 25, 1998
Experimental designations: DS9612

AquaMate

1. AquaMate is a 29 clone synthetic variety. Fifteen parents were selected out of saturated soils near Marshfield, WI. Plants were selected for the branch rootedness, resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot(Race 1or2), crown health and herbage growth. Source material trace back to 5373, 5472, Nordic, Zenith, Quest, 645, Precedent, Legacy, Blazer XL, Magnum III-Wet and Dairyland experimentals. Fourteen parent plants were selected out of forage yield trial plots near Clinton, WI for resistance to bacterial wilt, Fusarium wilt, leaf disease, crown health and herbage growth. This source material trace back to the germplasm MNB-P1, Webfoot and Dairyland experimentals. The percent of germplasm sources are: M. falcata(5), Ladak(10), M. varia(8), Turkistan(20), Flemish(35), and Unknown(22).

2. AquaMate is adapted in the North Central Region of the United States and intended for use in the Northern half of the United States. The state where it has been tested is Wisconsin.

3. AquaMate is a dormant, fall dormancy 3 variety. Flower color in the Syn. 2 generation is 85% purple, 12% variegated, 1% cream, 1%white and 1%yellow.

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

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn.1 seed near Sloughhouse, CA in 1993. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: AquaMate Date submitted: November 25, 1998
Experimental designations: DS9553

Cisco

1. Cisco is a 51 clone synthetic variety. Twenty six parent plants were selected from the variety Sutter out of forage yield plots near Clinton, WI. These parent plants were evaluated for bacterial wilt, Fusarium wilt, leaf disease, crown health and herbage growth. Twenty five parent plants were selected out of disease nurseries for resistance to Phytophthora root rot and anthracnose(Race 1). These parent plants trace back to UC Cibola, WL457 and D/S experimentals of an unknown origin. The percent of germplasm sources are: Turkistan(10), Chilean(4), Peruvian(1) and Unknown(85).

2. Cisco is adapted in the Southwestern Region of the United States and intended for use in the Southern and Central regions of the United States. The states where it has been tested are California and Wisconsin.

3. Cisco is a moderately dormant, fall dormancy 6 variety. Flower color in the Syn. 2 generation is 95% purple, 5% variegated with trace amounts of cream, white and yellow.

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

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn. 1 seed near Sloughhouse, CA in 1991. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1999.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Cisco Date submitted: November 25, 1998
Experimental designations: 962958

WinterCrown

1. WinterCrown is a 51 clone synthetic variety. Twenty six parent plants were selected from the variety MagnaGraze out of forage yield plots near Clinton, WI. Plants were selected for deep set crowns, resistance to bacterial wilt, Fusarium wilt, crown health and herbage growth. Twenty five parent plants were selected from the germplasm MNP-D1 (Syn. 2) out of disease nurseries. These parent plants were progeny tested for 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 percent of germplasm sources are: M. falcata(10), Ladak(18), M. varia(12), Turkistan(40), Flemish(20).

2. WinterCrown is adapted in the North Central Region of the United States and intended for use in the Northern half of the United States. The state where it has been tested is Wisconsin.

3. WinterCrown is a dormant, fall dormancy 3 variety. Flower color in the Syn. 2 generation is 82% purple, 17% variegated, 1% cream, 1%white and 1%yellow.

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

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn. 1 seed near Sloughhouse, CA in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available spring of 1999.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: WinterCrown Date submitted: November 25, 1998
Experimental designations: DS9853

Forecast 3001

1. Forecast 3001 is a 75 clone synthetic variety. Parent plants were selected for four cycles for late maturity in space planted clonal nurseries. Parent plants were concurrently selected for persistence, spring vigor, forage yield along with resistance to bacterial wilt, Fusarium wilt and Phytophthora root rot, Aphanomyces root rot(Race 1or2) and Verticillium wilt. Parent plants trace back to Majestic, Magnum III, WAPH-1, 5373, 5246, 5444, ABI700, Quantum, Olds3452ML and Dairyland experimentals. Percentage of germplasm sources are:Ladak(3), M. varia(8), Turkistan(15), Flemish(22) and Unknown(52).

2. Forecast 3001 is adapted to the North Central region of the United States. It is intended for use in the North and Central regions of the United States. The state and province in which it has been tested are: Wisconsin and Ontario, Canada.

3. Forecast 3001 is dormant, fall dormancy 3 variety. Flower color in the Syn.2 generation is 86% purple, 14% variegated, and trace amounts of cream, white, and yellow.

4. Forecast 3001 has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt; resistance to anthracnose(Race1), Verticillium wilt, Aphanomyces root rot(Race1). Its reaction to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root-knot nematode, stem nematode have not been tested.

5. Breeder seed was produced from bulking seed of parent plants hand-crossed in greenhouse near Clinton, WI to produce Syn.1 in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified seed will be available spring of 2000.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Forecast 3001 Date submitted: 11/25/98
Experimental designation: SMA9565

Arrowhead

1. Arrowhead is a 58 clone synthetic variety. One half of the parent plants were selected from the variety MagnaGraze out of forage yield plots near Clinton, WI. Plants were selected for deep set crowns, resistance to bacterial wilt, Fusarium wilt, crown health and herbage growth. The other half of the parent plants were selected out of saturated soils near Marshfield, WI. Plants were selected for resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, Aphanomyces root rot(Race 1or2) and leaf disease. This source material trace back to Evolution and Defiant. The percent of germplasm sources are: Ladak(28), M. varia(12), Turkistan(35), Flemish(25).

2. Arrowhead is adapted in the North Central Region of the United States and intended for use in the Northern half of the United States. The state where it has been tested is Wisconsin.

3. Arrowhead is a dormant, fall dormancy 2 variety. Flower color in the Syn. 2 generation is 85% purple, 15% variegated, trace amounts of cream, white and yellow.

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

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn. 1 seed near Sloughhouse, CA in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Arrowhead Date submitted: November 25, 1998
Experimental designations: DS9852

SMA9561

1. SMA 9561 is a 21 clone synthetic variety. Parent plants were selected for three cycles for early maturity in space planted clonal nurseries. Parent plants were concurrently selected for persistence, spring vigor and forage yield along with resistance to bacterial wilt, Fusarium wilt and Phytophthora root rot, Aphanomyces root rot(Race 1or2) and Verticillium wilt. Parent plants trace back to Impact and Dairyland experimentals. Percentage of germplasm sources are: Ladak(3), M. varia(10), Turkistan(32), Flemish(47) and Chilean(8).

2. SMA9561 is adapted to the North Central region of the United States. It is intended for use in the North and Central regions of the United States. The state and province in which it has been tested are: Wisconsin and Ontario, Canada.

3. SMA9561 is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 88% purple, 12% variegated, and trace amounts of cream, white, and yellow.

4. SMA9561 has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt; resistance to anthracnose(Race1), Verticillium wilt, Aphanomyces root rot(Race1). Its reaction to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root-knot nematode, stem nematode have not been tested.

5. Breeder seed was produced from bulking seed of parent plants hand-crossed in greenhouse near Clinton, WI to produce Syn.1 seed in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified seed will be available spring of 2000.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: _____ Date submitted: 11/25/98
Experimental designation: SMA9561

Forecast 1001

1. Forecast 1001 is a 16 clone synthetic variety. Parent plants were selected from Forecast 1000 for three cycles for the early maturity trait in space planted clonal nurseries. Parent plants were concurrently selected for persistence, spring vigor and forage yield along with resistance to bacterial wilt, Fusarium wilt and Phytophthora root rot, Aphanomyces root rot(Race 1or2) and Verticillium wilt. Percentage of germplasm sources are: Turkistan(25), Flemish(40) and Unknown(35).

2. Forecast 1001 is adapted to the North Central region of the United States. It is intended for use in the North and Central regions of the United States. The state and province in which it has been tested are: Wisconsin and Ontario, Canada.

3. Forecast 1001 is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 85% purple, 15% variegated, and trace amounts of cream, white, and yellow.

4. Forecast 1001 has high resistance to Phytophthora root rot, bacterial wilt; resistance to anthracnose(Race1), Fusarium wilt, Verticillium wilt, Aphanomyces root rot(Race1). Its reaction to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root-knot nematode, stem nematode have not been tested.

5. Breeder seed was produced from bulking seed of parent plants hand-crossed in greenhouse near Clinton, WI to produce Syn.1 in 1994. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified seed will be available spring of 2000.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Forecast 1001 Date submitted: 11/25/98
Experimental designation: SMA9579

SMA9482

1. SMA9482 is a 62 clone synthetic variety. Parent plants were selected for two cycles for late maturity in space planted clonal nurseries. Parent plants were concurrently selected for persistence, spring vigor and forage yield along with resistance to bacterial wilt, Fusarium wilt and Phytophthora root rot, Aphanomyces root rot(Race 1or2) and Verticillium wilt. Parent plants trace back to Magnum III-Wet, 5432, Magnum III, 5373, Impact, and Dairyland experimentals. Percentages of germplasm sources are:Ladak(3), M. varia(8), Turkistan(23), Flemish(32) and Unknown(34).

2. SMA9482 is adapted to the North Central region of the United States. It is intended for use in the North and Central regions of the United States. The state and province in which it has been tested are: Wisconsin and Ontario, Canada.

3. SMA9482 is moderately dormant, fall dormant 4 variety. Flower color in the Syn.2 generation is 89% purple, 11% variegated, and trace amounts of cream, white, and yellow.

4. SMA9482 has high resistance to bacterial wilt, Fusarium wilt; resistance to anthracnose(Race1), Phytophthora root rot, Verticillium wilt; moderate resistance to Aphanomyces root rot(Race1). Its reaction to pea aphid, spotted alfalfa aphid, blue alfalfa aphid, northern root-knot nematode and stem nematode have not been tested.

5. Breeder seed was produced from bulking seed of parent plants hand-crossed in greenhouse near Clinton, WI to produce Syn.1 Seed in 1993. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified seed will be available spring of 2000.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: _____ Date submitted: 11/25/98
Experimental designation: SMA9482

Pershing

1. Pershing is a 150 clone synthetic variety. Parent plants were selected out of forage yield plots near Visalia, CA. Parent plants were selected out of PGI 8621C. These parent plants were evaluated for Fusarium wilt, stem nematode, root-knot nematode, spotted alfalfa aphid resistance; crown health, fall dormancy and seed production. The percent of germplasm sources are: Indian(25), African(50) and Arabian(25).

2. Pershing is adapted and intended for use in the Southwestern Region of the United States. The states where it has been tested are California and New Mexico.

3. Pershing is a non-dormant, fall dormancy 8 variety. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

4. Pershing has high resistance to Fusarium wilt, Phytophthora root rot, spotted alfalfa aphid, northern root-knot nematode(M. halpa); resistance to pea aphid, blue alfalfa aphid, stem nematode, southern root-knot nematode(M. incognita); moderate resistance to bacterial wilt and low resistance to anthracnose(Race 1) and Verticillium wilt. It has not been tested for Aphanomyces root rot(Race 1).

5. Breeder seed was produced from bulking seed of parent plants planted in field isolation to produce Syn.1 seed near Sloughhouse, CA in 1993. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn. 3) from Foundation seed. One generation each of Breeder, Foundation and 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. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified Seed was available fall of 1999.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Pershing Date submitted: November 25, 1998
Experimental designations: DS482

Mecca III

1. Mecca III is a 60 clone synthetic variety. Parent plants were selected out of forage yield plots near Visalia, CA for resistance for root and crown diseases. Parent plants trace back to Mecca II. The percent of germplasm sources are: M. falcata(1), Ladak(1), M. varia(2), Turkistan(10), Flemish(1), Chilean(9), Peruvian(2), Indian(20), African(46) and unknown(8).

2. Mecca III is adapted and intended for use in the Southwestern Region of the United States. The states where it has been tested are California, Buenos Aires, Santa Fe Argentina.

3. Mecca III is a very non-dormant variety similar to CUF101 in fall dormancy. Flower color in the Syn. 2 generation is 95% purple, 5% variegated with trace amounts of cream, white and yellow.

4. Mecca III has high resistance to Fusarium wilt, spotted alfalfa aphid, pea aphid; resistance to Phytophthora root rot, blue alfalfa aphid, northern root-knot nematode(M. halpa), stem nematode, southern root-knot nematode(M. incognita); moderate resistance to bacterial wilt and Aphanomyces root rot(Race 1). It has not been tested for anthracnose(Race 1) and Verticillium wilt.

5. Breeder Seed was produced from bulking seed of parent plants planted in isolation to produce Syn. 1 near Sloughhouse, CA in 1993. Foundation Seed(Syn. 2) was produced from Breeder Seed and Certified Seed(Syn. 3) from Foundation Seed. One generation each of Breeder, Foundation and Certified Seed are recognized. A maximum of three years each are permitted on stands producing Breeder and Foundation with five years for Certified Seed. Sufficient Breeder Seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified Seed was available fall of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Mecca III
Experimental designations: DS591
Date NA&MLVRB first accepted this variety: January, 1998
Dates previous amendments were accepted:
Date this amendment was submitted: November 25, 1998

DS491

1. DS491 is a 5 clone synthetic variety. Parent plants were selected from disease screening evaluations. These parent plants were progeny tested for one or more of the following traits: forage yield, persistence, seed yield, resistance to Phytophthora root rot, anthracnose(Race 1) and leaf disease. Parent plants trace back to Sapphire, Nitro, Yolo, Falcon and Monarca. The percent of germplasm sources are: Flemish(10), Chilean(13), Peruvian(31), Indian(20), and African(26).

2. DS491 is adapted and intended for use in the Southwestern Region of the United States. The states where it has been tested are California, Wisconsin, Buenos Aires, Santa Fe Argentina.

3. DS491 is a non-dormant variety similar to Moapa 69 in fall dormancy. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amounts of cream, white and yellow.

4. DS491 has high resistance to Fusarium wilt, spotted alfalfa aphid, blue alfalfa aphid, northern root- knot nematode(M. halpa); resistance to Phytophthora root rot, bacterial wilt, stem nematode, southern root-knot nematode(M. incognita); moderate resistance to Aphanomyces root rot(Race 1), anthracnose(Race 1). It has not been tested for Verticillium wilt and pea aphid.

5. Breeder Seed was produced from bulking seed of parent plants planted in isolation to produce Syn. 1 near Sloughhouse, CA in 1991-93. Foundation Seed(Syn. 2) was produced from Breeder Seed and Certified Seed(Syn. 3) from Foundation Seed. One generation each of Breeder, Foundation and Certified Seed are recognized. A maximum of three years each are permitted on stands producing Breeder and Foundation with five years for Certified Seed. Sufficient Breeder Seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified Seed was available spring of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: _____
Experimental designations: DS491
Date NA&MLVRB first accepted this variety: January, 1998
Dates previous amendments were accepted: _____
Date this amendment was submitted: November 25, 1998

Magnum V

1. Magnum V is a 12 clone synthetic variety. 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(Race1), Verticillium wilt, Aphanomyces root rot(Race1), and spotted alfalfa aphid. Parent plants trace back to Apollo, Tempo, Thor, Answer, Teweles Multistrain, and Dairyland Experimentals which trace back to Vernal, Ranger and Iroquois. Percentage of germplasm sources are: M. falcata(8), Ladak(8), M.varia(10), Turkistan(20), Flemish(30) and Chilean(24).

2. Magnum V is adapted to the North Central, East Central and Great Plains regions of the United States. It is intended for use in the Central and Northern half of the United States. The states in which it has been tested are: Wisconsin, Minnesota, Iowa, Michigan, and Kansas.

3. Magnum V is moderate dormant, fall dormancy 4 variety. It expresses high forage quality similar to the high forage quality check variety. Flower color in the Syn.2 generation is 92% purple, 8% variegated, and trace amounts of cream, white, and yellow.

4. Magnum V has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt, resistance to anthracnose(Race1), Verticillium wilt, pea aphid, spotted alfalfa aphid, stem nematode; moderate resistance to Aphanomyces root rot(Race1), blue alfalfa aphid, and northern root-knot nematode.

5. Breeder seed was produced from cuttings of the parent plants planted in cage isolation to produce Syn.1 at Sloughhouse, CA in 1988-90. Seed was bulked in equal proportions each year and lots were kept separate. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed(Syn.2 or 3) from either Breeder or Foundation seed. One generation each of Breeder and Foundation, and two generations of Certified seed classes are recognized. A maximum of three years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified seed will be available spring of 1997.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Magnum V
Experimental designations: DS907
Date NA&MLVRB first accepted this variety: January, 1996
Dates previous amendments were accepted:
Date this amendment was submitted: November 25, 1998

Ripin

1. Ripin is a 20 clone synthetic variety. One half of the parents were selected out of saturated soils near Marshfield, WI. Plants were selected for the branch rooted trait and excellent herbage growth. Source material trace back to 5373, 5472, 5364, Magnum III-Wet and Dairyland experimentals. The other half of the parents were selected for the sunken crown trait out of forage yield plots near Clinton, WI. This source material trace back to Answer and Dairyland experimentals. The percent of germplasm sources are: Ladak(2), M. varia(14), Turkistan(20), Flemish(40) and unknown(24).

2. Ripin is adapted to the North Central and East Central Region of the United States and intended for use in the upper half of the United States. The state where Ripin has been tested is: Wisconsin.

3. Ripin is a moderately dormant, fall dormancy 4 variety. Flower color in the Syn. 2 generation is 95% purple, 5% variegated with trace amount of cream, white and yellow. In poorly drained soils, Ripin expresses branch root tendencies.

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

5. Syn.0 seed was produced from bulking seed of parent plants planted in isolation near Sloughhouse, CA in 1992. Breeder Seed(Syn.1) was produced from Syn. 0 seed and Foundation Seed(Syn.2) from Breeder Seed. Certified Seed(Syn.2or3) can be produced from either Breeder or Foundation Seed. One generation each of Breeder, Foundation and two generations of Certified Seed are recognized. A maximum of three years each are permitted on stands producing Breeder and Foundation with five years for Certified Seed. Sufficient Breeder Seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified Seed was available spring of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: Ripin
Experimental designations: DS9454
Date NA&MLVRB first accepted this variety: January, 1998
Dates previous amendments were accepted:
Date this amendment was submitted: November 25, 1998

DS9410

1. DS9410 is a strain crossed synthetic variety. 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(Race1), Verticillium wilt, Aphanomyces root rot(Race1), and spotted alfalfa aphid. Parent plants trace back to Thor and Teweles Multistrain. Percentage of germplasm sources are: Turkistan(50) and Flemish(50).

2. DS9410 is adapted to the North Central and East Central regions of the United States. It is intended for use in the Central and Northern half of the United States. The states in which it has been tested are: Wisconsin and Illinois.

3. DS9410 is moderately dormant, fall dormancy 4 variety. Flower color in the Syn.2 generation is 94% purple, 6% variegated, and trace amounts of cream, white, and yellow.

4. DS9410 has high resistance to Phytophthora root rot, bacterial wilt, Fusarium wilt, northern root-knot nematode(M. halpa), resistance to anthracnose(Race1), Aphanomyces root rot(Race1), pea aphid, spotted alfalfa aphid, stem nematode; moderate resistance to Verticilluim wilt, and blue alfalfa aphid.

5. Breeder seed was produced from cuttings of the parent plants planted in cage isolation to produce Syn.1 at Sloughhouse, CA in 1990-92. Seed was bulked in equal proportions each year and lots were kept separate. Foundation seed (Syn. 2) was produced from Breeder seed and Certified seed(Syn. 3) from Foundation seed. One generation each of Breeder Foundation, and Certified seed classes are recognized. A maximum of three years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified seed was available spring of 1997.

7. Application for Plant Variety Protection is anticipated.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name:_____
Experimental designations: DS9410
Date NA&MLVRB first accepted this variety: January, 1996
Dates previous amendments were accepted:_____
Date this amendment was submitted: November 25, 1998

DS9475

1.DS9475 is a 25 clone synthetic variety. One half of the parents were selected out of saturated soils near Marshfield, WI. Plants were selected for the branch rooted trait and excellent herbage growth. Source material trace back to 5373, 5472, Nordic, Zenith, Quest, 645, Precedent, Legacy, BlazerXL, Magnum III-Wet and Dairyland experimentals. The other half of the parents were selected out of disease evaluation and were progeny tested for one or more of the following traits: forage yield, persistence, forage quality, seed yield, resistance to Phytophthora root rot, anthracnose(Race 1), Verticillium wilt, Aphanomyces root rot(Race 1) and spotted alfalfa aphid. Percentage of this source material trace back to MNB-P1, Answer, RamRod and Dairyland experimentals. The percent of germplasm sources are: Ladak(10), M. varia(8), Turkistan(15), Flemish(40) and unknown(27).

2. DS9475 is adapted to the North Central and East Central Region of the United States and intended for use in the upper half of the United States. The state where DS9475 has been tested is: Wisconsin.

3. DS9475 is a dormant, fall dormancy 3 variety. Flower color in the Syn. 2 generation is 90% purple, 10% variegated with trace amount of cream, white and yellow. In poorly drained soils, DS9475 expresses branch rootedness.

4. DS9475 has high resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, stem nematode, northern root-knot nematode(M. halpa); resistant to Verticillium wilt, pea aphid, Aphanomyces root rot(Race 1), and anthracnose(Race 1) and moderate resistance to blue alfalfa aphid. Its reaction to spotted alfalfa aphid has not been tested.

5. Breeder Seed was produced from bulking seed of parent plants planted in cage isolation to produce Syn. 1 seed near Sloughhouse, CA in 1993. Foundation Seed(Syn. 2) was produced from Breeder Seed and Certified Seed(Syn. 3) from Foundation Seed. One generation each of Breeder, Foundation and Certified Seed are recognized. A maximum of three harvest years each are permitted on stands producing Breeder and Foundation with five years for Certified Seed. Sufficient Breeder Seed for the projected life of the variety will be maintained by Dairyland Research.

6. Certified Seed was available spring of 1998.

7. Application for the Plant Variety Protection is undecided.

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name: _____
Experimental designations: DS9475
Date NA&MLVRB first accepted this variety: January, 1998
Dates previous amendments were accepted: _____
Date this amendment was submitted: November 25, 1998

BPR374

1. BPR374 is a 50 clone synthetic variety. One half of the parent plants were selected out of saturated soils near Marshfield, WI. Plants were selected for the branch rooted trait and excellent herbage growth. Source material trace back to 5373, 5472, Nordic, Zenith, Quest, 645, Precedent, Legacy, BlazerXL, Magnum III-Wet and Dairyland Experimental. The other half of the parent plant were selected out of disease nurseries and progeny tested for one or more of the following traits: forage yield, persistence, seed yield, forage quality, resistance to Phytophthora root rot, Aphanomyces root rot(Race 1), Verticillium wilt, bacterial wilt, Fusarium wilt, and spotted alfalfa aphid. This source material trace back to MNB-P1, Answer, RamRod and Dairyland Experimental. The percent of germplasm sources are: Turkistan(21), Flemish(38), Chilean(10) and unknown(31).

2. BPR374 is adapted to the North Central and East Central Region of the United States and intended for use in the Northern half of the United States. The states were it has been tested are Iowa, Minnesota, Nebraska, Pennsylvania and Wisconsin.

3. BPR374 is a dormant, fall dormancy 3 variety. Flower color in the Syn. 2 generation is 86% purple, 14% variegated with trace amounts of cream, white and yellow. In poorly drained soils, BPR374 expresses branch rootedness.

4. BPR374 has high resistance to bacterial wilt, Fusarium wilt, Phytophthora root rot, stem nematode: resistance to anthracnose(Race 1), Verticillium wilt, pea aphid, Aphanomyces root rot(Race 1), northern root-knot nematode(M. halpa) and moderate resistance to blue alfalfa aphid. Its reaction to spotted alfalfa aphid has not been tested.

5. Breeder seed was produced from bulking seed of parent plants planted in cage isolation to produce Syn.1 at Sloughhouse, CA. in 1993. Foundation seed (Syn.2) was produced from Breeder seed and Certified seed (Syn.3) from Foundation seed. One generation each of Breeder, Foundation and Certified seed classes are recognized. A maximum of three years each is permitted on stands producing Breeder and Foundation seed with five years for Certified seed. Sufficient Breeder seed for the projected life of the variety will be maintained by Dairyland Research International.

6. Certified seed will be available spring of 1998.

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

8. Information in the NAVRB application can be forwarded to the PVP office.

9. Variety name:_____
Experimental designations: BPR374
Date NA&MLVRB first accepted this variety: January, 1998
Dates previous amendments were accepted:_____
Date this amendment was submitted: November 25, 1998

54V54

1. 54V54 is a 20 clone synthetic variety with seed of each parent bulked equally. Breeder seed (syn. 2) was produced on 223 plants under cage isolation in Connell, WA during the summer of 1993. Parental material was selected phenotypically for resistance to one or more of the following pests: bacterial wilt, *Fusarium* Wilt, *Verticillium* Wilt, *Phytophthora* root rot, anthracnose (race 1), *Aphanomyces* root rot (race 1), and spotted alfalfa aphid. In addition, parent clones were selected genotypically for forage yield, forage quality, fall dormancy, regrowth vigor, and persistence. 54V54 traces to the following germplasm sources: 5331 (13%), Apollo (6%), 526 (5%), 5262 (5%), 532 (4%), NCMP10 (4%), DK120 (3%), Saranac AR (3%), 545 (3%), Apollo II (2%), Anchor (2%), WL316 (2%), 524 (1%), 5444 (1%), Conquest (1%), Mercury (1%), 5432 (1%), Culver (1%), Vernal (1%), with minor contributions (totaling 2.5%) from: Team, Armor, Narragansett, Cherokee, Saranac, ATRA 55, MSB-W4, Magnum, Futura, 555, Endure, 5364, Iroquois, Arnim and others. The remaining 40.5% traces to various Pioneer experimentals.

2. 54V54 is adapted to the north central, east central, and winterhardy intermountain regions of the United States. It is intended for use in the North Central, East Central, Great Plains, moderately winterhardy regions of the United States and Ontario, Canada. It has been tested in Iowa, Pennsylvania, Oregon, Washington, Wisconsin and Minnesota.

3. 54V54 is a moderately dormant cultivar with a fall dormancy similar to Saranac. Growth habit is erect in the summer, and semi-erect in the fall. Flower color in the syn. 2 generation is 80.4% purple, 19.1% variegated, 0.5% yellow with traces of cream and white.

4. 54V54 has high resistance to anthracnose (race 1), bacterial wilt, *Fusarium* Wilt, *Verticillium* Wilt, and *Phytophthora* root rot; resistance to spotted alfalfa aphid; moderate resistance to Aphanomyces root rot (race 1), and low resistance to stem nematode. 54V54 has not been tested for the pea aphid nor blue aphid.

5. Breeder seed (Syn 2) was produced on 223 parents representing approximately equal contributions from the 20 parental clones during the summer of 1993 under cage isolation in Connell, WA. Seed classes will be breeder, foundation (Syn 3 or Syn 4), and certified (Syn 3, Syn 4, Syn 5). Foundation seed may be produced from breeder or foundation. The second generation foundation (Syn 4) may be produced at the discretion of Pioneer Hi-Bred International, Inc. Limitations on age of stand will be one, three, and five years respectively for breeder, foundation seed and certified seed. Sufficient breeder and/or foundation seed for the projected life of the variety will be maintained by Pioneer Hi-Bred International, Inc.

6. Seed will be marketed in the fall of 1999.

7. 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.

8. Variety name: 54V54 Date submitted: November 23, 1998.

9. Experimental designations:X54V54, Y53V53

Revised description:

54Q53

1. 54Q53 is a synthetic variety made up from 225 random parent plants crossed in "cage isolation" in 1994. Parent plants trace to populations selected for winterhardiness and forage yield as well as for one or more of the following pests: bacterial wilt, *Verticillium wilt*, *Phytophthora* root rot, stem nematode, northern root knot nematode, and spotted aphid. Phenotypic recurrent selection was used. Final selections were made from a space plant selection nursery near Connell, WA after a second winter based on winter survival, agronomic scores, and forage quality scores. Approximate germplasm source contributions are: *M. falcata* (3%), Ladak (5%), *M. varia* (14%), Turkistan (3%), Flemish (23%), Chilean (4%), African (1%), Indian (<1%), Peruvian (<1%) and unknown (46%).

2. 54Q53 is intended for use in the great plains, east central, winterhardy intermountain, and moderately winterhardy intermountain regions of the United states. The states in which 54Q53 have been tested are: Iowa, Minnesota, Wisconsin, Oregon, and Washington.

3. 54Q53 is a moderately winterhardy, moderately dormant cultivar with hardiness similar to Ranger and fall dormancy similar to Saranac. It is a high forage quality variety. Flower color in the Syn. 2 generation is approximately 93% purple and 7% variegated with traces of yellow, white and cream.

4. 54Q53 is highly resistant to bacterial wilt, *Verticillium* wilt, *Phytophthora* root rot, stem nematode, and northern root knot nematode; resistant to anthracnose (race 1) and *Fusarium* wilt; and moderately resistant to *Aphanomyces* root rot, pea aphid, and spotted alfalfa aphid. Resistance to blue aphid has not been determined.

5. Breeders seed (Syn 1) was produced on 225 plants in cage isolation and bulked. Seed classes will be breeder, foundation (Syn 2 or 3), and certified (Syn 2, Syn 3, or Syn 4). Foundation seed may be produced from breeder or foundation. The second generation foundation seed may be produced at the discretion of Pioneer Hi-Bred International, Inc. Limitations of age of stand will be one, three and five years respectively, for breeder, foundation, and certified seed. Breeder seed must be grown in the Pacific Northwest region of the United States.

6. Seed will be marketed in the spring of 1998.

7. Application for Plant Variety Protection will be made, and the certification option will not be requested.

8. 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.

9. Variety name: 54Q53

10. Experimental designations: X54Q53

Date NA&MLVRB first accepted this variety: January, 1998

Dates previous amendments were accepted: None

Date this amendment submitted: November 23, 1998

Revised description:

5347LH

1) 5347LH is an 11 clone synthetic variety. Parent clones were selected phenotypically for resistance to one of more the following pests bacterial wilt, *Fusarium* wilt, *Verticillium* wilt, *Phytophthora* root rot, anthracnose (race 1), *Aphanomyces* root rot (race 1), and potato leafhopper (PLH). In addition, parents were selected genotypically for forage yield, fall dormancy and forage quality. A modified backcrossing program was used to transfer the PLH resistant trait from germplasm releases KS94GH6, KS108GH5, and 81IND-2 to a commercial background. Germplasm sources are: *M. falcata* (7%), Ladak (7%), *M. varia* (29%), Turkistan (2%), Flemish (41%), Chilean (5%), KS94GH6 (3%), KS108GH5 (3%), 81IND-2 (3%).

2) 5347LH is adapted to and intended for use in the north central, east central, and Great Plains regions of the United States. It has been tested in Iowa, Illinois, Minnesota, and Wisconsin.

3) 5347LH is a very winterhardy, dormant cultivar with a fall dormancy similar to Ranger. Growth habit is erect in the summer, and semi-erect in the fall. Flower color in the syn. 2 generation is approximately 35% purple, 64% variegated, 1% cream with traces of white and yellow.

4) 5347LH has high resistance to anthracnose (race 1), bacterial wilt, *Fusarium* wilt, *Phytophthora* root rot, and pea aphid; resistance to *Verticillium* wilt and *Aphanomyces* root rot (race 1); moderate resistance to stem nematode, spotted alfalfa aphid, potato leafhopper and blue alfalfa aphid. 5347LH has not been tested for resistance to root knot nematode.

5) Breeder seed (syn. 1) was produced on replicated cuttings of the eleven parent clones in the greenhouse in 1994 and 1995, and in cage isolation in 1995. Seed from all parents was bulked. Seed classes will be breeder (syn.1), foundation (syn. 2 or syn. 3) and certified (syn. 3 or syn. 4). Foundation seed may produced from breeder or foundation.. The second generation of foundation seed may be produced at the discretion of Pioneer Hi-Bred International, Inc. Limitations of age of stand will be three and five years respectively, for foundation and certified breeder seed. Pioneer Hi-Bred International Inc. will maintain sufficient levels of breeder and foundation seed for the projected life of the variety.

6) Seed was first marketed in the fall of 1996.

7) Application for Plant Variety Protection will be made, and the certification option will not be requested.

8) 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.

9. Variety name: 5347LH

Experimental designations: XAM411

Date NA&MLVRB first accepted this variety: January, 1998

Dates previous amendments were accepted: None

Date this amendment submitted: November 23, 1998