

AGRONOMY PROGRESS REPORT

**2012 CALIFORNIA ALFALFA VARIETY TRIAL YIELD RESULTS,
 INCLUDING ROUND-UP READY VARIETIES**

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ABSTRACT

This publication details alfalfa yield trial data for single harvest, single year, and multiple-year summaries for the year 2012. Both conventional and Roundup-Ready (RR) lines have been tested. Yield trials were conducted in 5 regions in California: the Intermountain area (2 locations), the Sacramento Valley (1 location), the Stanislaus Valley (1 location) and the San Joaquin Valley (2 locations). The alfalfa variety trial data from the University of California is placed online; often well in advance of this published report (<http://alfalfa.ucdavis.edu/>).

INTRODUCTION

Choosing superior varieties of alfalfa is a significant economic factor for alfalfa growers. A large number of commercial varieties are currently available, enabling wide range of options for producers. These UC trials provide unbiased data from a wide range of environments related to variety performance of alfalfa. In California, alfalfa is grown from the Oregon border to the Mexican border, and throughout the Great Central Valley, which consists of the Sacramento and San Joaquin Valleys (Figure 1). These sites represent 3-4 cut systems (dormant varieties) in the **Intermountain Region**, 6-8 cut systems (dormant, semi-dormant, or non-dormant 90% varieties) in the **Northern Central Valley**, 7-8 cut systems (semi-dormant to non-dormant varieties) in the **Southern Central Valley** and 8-11 cut systems (non-dormant varieties) in the

California Alfalfa Acreages by Section

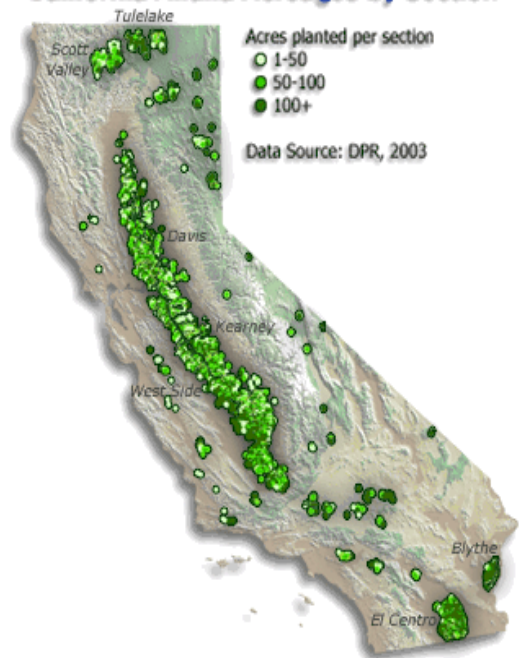


Figure 1. California alfalfa acreage. The Intermountain region is represented by Tulelake and Scott Valley, Sacramento Valley by Davis, San Joaquin Valley by Kearney and West Side Locations, high desert by the Lancaster trial, and Low Desert by the El Centro trial.

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Low Desert Environment in the south. The **High Desert environment** generally is a 5-6 cut system.

Both private and public varieties and experimental lines are tested. These data are frequently used by growers to choose varieties, and by breeders to help guide further selection. We test both private and public varieties, and experimental lines destined for release within the next few years. This report provides single year and over-the-year summary from alfalfa trials harvested in California in 2012.

2012 ALFALFA PRODUCTION YEAR

The 2012 production season was generally characterized by a much more moderate winter season followed by a mild spring and summer season, with moderate temperatures in July and August. California is slowly coming out of a 2-year drought, with water limitations in some regions due to low water supplies for irrigation. The remainder of the season (August-October) was much milder than typical. Winter rainfall was 30% below normal which caused the reservoirs to be diminished from their previous highs. This was followed by seasonably cooler temperatures in the summer months. The minimal rainfall during the early spring allowed earlier harvests from the growers in the San Joaquin Valley and southern regions. The Intermountain areas also had a fairly dry spring. The moderate and dry fall months enabled excellent late production (high yields and high quality) for many growers.

Record prices occurred in 2012 and were well above the 10-year average, rising to over \$260/ton in some of the key dairy areas of Central California. This situation continued through the summer and fall months. Currently, hay stocks are down, demand is high and hay prices are starting to increase. New plantings of alfalfa are down. As we moved into the new year the price of alfalfa remains upwards of \$250-300.00/ton.

TESTING ALFALFA VARIETIES - METHODS

Yield Trials. The California Alfalfa Cultivar Yield, Fall Dormancy, and Forage Quality Trials are open to any certified alfalfa cultivar, which is sold or is likely to be sold in California. Blends or brands (unless they are certified blends) are not included in these trials. Experimental cultivars with a high likelihood of release within the next few years are tested as space permits. Seven alfalfa variety yield trials were harvested from Tulelake, Davis, Parlier, and West Side Field Station in 2012.

In the fall of 2010 (Tulelake and Kearney Research and Extension Center) two new trials were established. Two new trials (UC Davis and Stanislaus County) were planted in the fall of 2011. Drip lines were installed in the UC Davis planting. Due to disease and irrigation problems both the Stanislaus and the UC Davis Trial had to be replanted. We had to suspend the Imperial Valley variety trial as of May of 2011 due to soil and irrigation issues which had caused poor yields. But in the fall of 2012 we installed drip irrigation lines and established a new Imperial Valley variety trial on October 8, 2012.

All the varietal trial plantings were at approximately 25 lbs./acre live seed. Plots were 3' to 4' wide and 13 to 20 feet long, depending upon location and specific layout. Four to seven

replicates of each cultivar were planted at each location, depending upon the expected variation at that site. Experimental design was a randomized complete block design. Harvests for yield estimation were obtained from approximately a 3' x 18' area per plot using a flail-type or cutter-bar type forage harvester, and dry matter yield determined by oven-drying sub samples to a constant weight. A representative group of 5-6 varieties were taken at each harvest, and the average dry matter used for yield determination. Three to four harvests were taken in the intermountain region, while up to ten cuttings were taken in the Imperial Valley. Cutting schedules were determined by the most common practice in that region and are the same for all varieties within a trial. The data is obtained from each of the locations and analyzed and summarized at the UC Davis campus.

Note on Statistical Inference: In 2006, we elected to analyze and report significance of variety testing data (calculation of F-test and LSD Values) based upon a probability value of 10% vs. the traditional 5%. In doing so, we are accepting a 90% confidence level vs. a 95% confidence level. This is due to the fact that growers routinely base decisions based upon degrees of confidence that are far lower than 95% confidence levels we have routinely used. A 10% probability level (the probability that the declared difference is based solely upon chance) is sufficiently conservative to prevent choosing varieties based upon false differences—such decisions are always a compromise between practical factors and statistical vigor. The practical implication of this decision: it does not change the rankings or yield averages, but it makes the groups that are considered similar (those that share the same letter A,B,C designations based upon LSD values) smaller in number. To put this in non-technical language: We report that variety X is significantly different than variety Y, and have accepted a 10% chance that the apparent difference is due to random variation, not due to the variety. We feel a 90% confidence level is sufficient for making decisions on alfalfa varieties.

2012 YIELD RESULTS

Intermountain Region

2007 UC Tulelake Yield Trial – The 2012 season was relatively normal in rainfall and temperature. Four cuttings were conducted during the season with the first cutting taking place on June 12, 2012. Single year results from the four harvests are provided in Table 1 and the over-the-years data provided in Table 2. The difference between high and low yield entries was 2.0 tons/acre, while the Fall Dormancy (FD) ranges were from 2-8.5. The average yield across all varieties was 8.0 tons/acre. The across-the-years yield differences from four years from highest to lowest yielding variety were approximately 2.0 tons/acre. Yields averaged over the five years were almost 8.0 tons/acre. The CVs were relatively low; indicating control of varieties was stable over each cut in this trial. Note: It is a misuse of University data to choose alfalfa varieties based upon a single year trial.

2010 UC Tulelake Yield Trial – A new trial was planted with 32 entries on August 17, 2010. Single year results from four 2012 harvests are provided in Table 3 with the first cutting taking place on June 12, 2012. Yield differences from highest to lowest yielding variety were approximately 1.7 tons/acre. The average yield across all varieties was 8.4 tons/acre. The CVs were relatively low; indicating control of varieties was stable over each cut in this trial.

Sacramento Valley

2011 UC Davis Yield Trial– In the fall of 2011 we installed drip irrigation lines in preparation of a new variety trial. On November 2 we established a new variety trial with 47 varieties. The plantings were at approximately 25 lbs./acre live seed. This is the first year of harvests for this UC Davis Yield Trial. Five cuttings were conducted during the season with the first cutting on May 24, 2012. Single year results from the four harvests are provided in Table 5. The yield across all varieties was about 6.34 tons/acre. The yearly yield average between high and low varieties was 2.1 tons/acre difference. After the first cutting the CVs were low, indicating the control of variation in this trial.

Stanislaus County

2011 UC Stanislaus Yield Trial-- – A new trial was planted with 52 entries on November 7, 2011 in Modesto. Five cuttings were conducted during the 2012 season with the first cutting taking place on June 21, 2012. Single year results from the 2012 harvests are provided in Table 6. The average yield across all varieties was 5.7 tons/acre. The yearly yield averages between high and low varieties were about 1.5 tons/acre difference, and CVs were moderate, indicating average control of variation in this trial. The fall dormancy ranges were from 6-9.

San Joaquin Valley

2010 UC West Side Salinity Trial – A new salinity trial with 24 varieties and one covariant line was planted fall, 2010 at the West Side Field Station in Five Points, CA. This is the third season of this yield trial and the data is provided in Table 9 and 10. Eight cuttings were conducted during the season with the first cutting taking place on April 3, 2012. The yearly yield average between high and low varieties was 3.8 tons/acre with CV's remaining moderate, especially in the summer months. The average yield across all varieties was 14.6 tons/acre. Yields averaged over the two years were over 12.3 tons/acre (Table 10). The yearly yield average between high and low varieties was nearly 1.8 tons/acre difference averaged over the two years.

2011 UC Kearney Yield Trial – A new trial was planted with 48 entries September 14, 2010 at the Kearney Research and Extension Center. Six cuttings were conducted during the 2012 season with the first cutting taking place on April 24, 2012. Single year results from the 2012 harvests are provided in Table 7. The average yield across all varieties was 12.1 tons/acre. The yearly yield averages between high and low varieties were about 3.5 tons/acre difference, and CVs were moderate, indicating average control of variation in this trial. The fall dormancy ranges were from 6-10. . Yields averaged over the two years were over 12 tons/acre (Table 8). The yearly yield average between high and low varieties was nearly 2.1 tons/acre difference averaged over the two years.

Low Desert

2012 UC Imperial Yield Trial – A new trial was planted with 39 entries October 13, 2008 at the UC Desert Research and Extension Center, El Centro. After two years of yield results we

abandoned the trial. We had serious problems with water penetration and proper irrigation timing. It is possible that the initial soil preparation was not done in a manner that allowed necessary water infiltration. In the 2012 season we established a new trial in the fall. This trial was planted with 36 varieties on October 8, 2012. The planting is a well-established stand at this time and has drip tape installed to insure better irrigation management.

INTERPRETING YIELD TRIAL RESULTS

We suggest the following procedure for selecting varieties:

1. **Select a group of high-yielding varieties** for your region (generally the top ¼ to 1/3 of a trial which is closest to your area) from Tables 1-10 over-the years summaries (or from our website). Since this report contains single-year summaries, we recommend that you see the over-the years summaries from the relevant locations which is on our website: <http://alfalfa.ucdavis.edu>
2. **Determine the Pest Resistance and Fall Dormancy needs** for your region. The FD scores are provided on these tables and in the Alfalfa Alliance Website (see #3).
3. **Consider the Fall Dormancy and Pest resistance Ratings** of individual varieties – available at the Alfalfa Alliance Website (www.alfalfa.org).
4. **Choose those high yielding varieties** with the best Pest Resistance package for your region.
5. **Consider evidence for high quality** if available (such information is not always widely available, but generally more dormant varieties tend to be higher in quality).
6. **Consider Biotech Traits** such as the Glyphosate-Resistance that could be available in the near future. This should be compared as a comprehensive weed control strategy, not just a variety.
7. **Test a variety on portions of your farm** to see how it does under your soil conditions.
8. **Consider the price of seed, availability and Service.**

ACKNOWLEDGMENTS

The authors are grateful for the help of Dale Pattigan for help with the field plots at UC Kearney Ag Center, Rafael Solorio and crews for help with the field plots at Westside Research and Extension Center, Don Kirby's crew at the Intermountain Research and Extension Center, Francisco Maciel's crew at the Desert Research and Extension Center, Andre Biscaro for extensive help with the Lancaster High Desert trial and Jim Jackson for help on the U.C. Davis plots.

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TABLE 1. 2012 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 7/27/07

Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	YEAR		% of
	FD	12-Jun	12-Jul	13-Aug	19-Sep	TOTAL		VERNAL
		Dry t/a						%
Released Varieties								
PGI 459	4	2.8 (1)	2.3 (1)	2.3 (1)	1.6 (5)	9.0 (1)	A	127.8
Archer III	5	2.8 (6)	2.2 (4)	2.1 (2)	1.6 (8)	8.7 (2)	AB	123.4
DKA50-18	5	2.7 (10)	2.2 (2)	2.1 (3)	1.6 (6)	8.6 (3)	ABC	122.6
AmeriStand407TQ	4	2.7 (13)	2.2 (3)	2.0 (11)	1.5 (19)	8.4 (4)	BCD	119.6
WL 357HQ	5	2.7 (8)	2.1 (7)	2.0 (28)	1.6 (14)	8.4 (5)	BCDE	118.8
MilkMaker ML	5	2.5 (29)	2.1 (10)	2.0 (12)	1.7 (4)	8.4 (6)	BCDEF	118.7
Legendary	3	2.8 (3)	2.0 (28)	2.0 (18)	1.5 (18)	8.4 (7)	BCDEF	118.6
Integra 8400	4	2.8 (2)	2.1 (23)	2.0 (21)	1.5 (31)	8.3 (8)	BCDEF	118.4
CW 500	5	2.5 (35)	2.1 (6)	2.1 (7)	1.6 (11)	8.3 (9)	CDEFG	117.4
GrandStand	4	2.8 (4)	2.1 (13)	2.0 (30)	1.4 (38)	8.3 (10)	CDEFGH	117.2
Genoa	4	2.6 (14)	2.1 (12)	1.9 (31)	1.5 (17)	8.2 (12)	CDEFGHI	116.8
Rebound 5	4	2.8 (5)	2.1 (9)	2.0 (27)	1.4 (49)	8.2 (13)	CDEFGHIJ	116.8
Integra 8300	3	2.5 (33)	2.1 (8)	2.0 (20)	1.6 (15)	8.2 (16)	DEFGHIJKLM	115.9
FSG 505	5	2.7 (9)	2.0 (33)	1.9 (37)	1.5 (22)	8.2 (18)	DEFGHIJKLM	115.8
Xtra-3	4	2.6 (16)	2.1 (19)	1.9 (36)	1.5 (27)	8.1 (20)	DEFGHIJKLMN	115.1
Prosementi	ND	2.3 (53)	2.1 (11)	2.0 (10)	1.7 (2)	8.1 (21)	DEFGHIJKLMN	114.9
AmeriStand444NT	4	2.5 (31)	2.0 (32)	2.0 (22)	1.5 (21)	8.1 (24)	DEFGHIJKLMNO	114.3
WL 343HQ	4	2.6 (19)	2.0 (43)	1.9 (32)	1.5 (24)	8.0 (26)	DEFGHIJKLMNOP	113.9
PGI 424	4	2.6 (25)	2.0 (39)	1.9 (42)	1.4 (37)	7.9 (33)	GHIJKLMNOPGRS	112.1
FSG 528SF	5	2.5 (34)	2.1 (17)	1.9 (45)	1.4 (39)	7.9 (35)	GHIJKLMNOPGRS	111.8
Dura 512	5	2.6 (23)	2.0 (40)	1.9 (35)	1.4 (50)	7.9 (38)	HIJKLMNOPGRS	111.4
Mountaineer 2	5	2.5 (39)	2.0 (36)	1.8 (47)	1.5 (23)	7.8 (39)	IJKLMNOPGRS	111.1
WL 325 HQ	4	2.5 (28)	2.0 (42)	1.9 (41)	1.4 (47)	7.8 (40)	JKLMNOPGRS	110.9
FSG 408DP	4	2.7 (11)	1.9 (52)	1.9 (43)	1.3 (52)	7.8 (42)	KLMNOPGRS	110.8
MasterPiece	4	2.3 (48)	2.0 (27)	2.0 (25)	1.4 (36)	7.8 (43)	LMNOPGRS	110.7
Magnum VI	4	2.5 (27)	2.0 (37)	1.8 (51)	1.4 (45)	7.8 (45)	MNOPGRS	110.1
Everlast II	4	2.4 (41)	1.9 (53)	1.8 (52)	1.4 (41)	7.6 (51)	GRS	107.4
Whitney	4	2.4 (46)	1.9 (48)	1.8 (48)	1.4 (43)	7.5 (53)	ST	106.9
54V09	4	2.6 (21)	1.9 (49)	1.8 (50)	1.2 (55)	7.5 (54)	ST	106.7
Vernal	2	2.4 (44)	1.9 (56)	1.6 (56)	1.1 (56)	7.0 (56)	U	100.0
Experimental Varieties								
R46Bx777	ND	2.8 (7)	2.0 (35)	1.9 (34)	1.5 (20)	8.2 (11)	CDEFGHI	117.0
R46Bx163	4	2.7 (12)	2.0 (31)	2.0 (13)	1.5 (32)	8.2 (14)	DEFGHIJK	116.6
R56Bx214	4	2.3 (50)	2.1 (20)	2.1 (5)	1.7 (1)	8.2 (15)	DEFGHIJKL	116.1
R46Bx165	8.5	2.6 (24)	2.1 (5)	2.0 (14)	1.4 (34)	8.2 (17)	DEFGHIJKLM	115.9
R46Bx173	5	2.5 (30)	2.1 (24)	2.1 (9)	1.5 (29)	8.2 (19)	DEFGHIJKLM	115.7
R46Bx164	6	2.5 (37)	2.1 (25)	2.0 (15)	1.5 (16)	8.1 (22)	DEFGHIJKLMN	114.9
R56Bx212	6	2.4 (45)	2.1 (15)	2.0 (17)	1.6 (12)	8.1 (23)	DEFGHIJKLMNO	114.5
R56BD190	ND	2.5 (32)	2.0 (30)	2.0 (19)	1.5 (26)	8.1 (25)	DEFGHIJKLMNO	114.2
R46BD201	ND	2.3 (52)	2.1 (14)	2.1 (8)	1.6 (13)	8.0 (27)	EFGHIJKLMNOP	113.5
R46Bx162	8	2.5 (38)	2.0 (26)	2.0 (26)	1.5 (30)	8.0 (28)	EFGHIJKLMNOP	113.4
R46Bx197	8	2.6 (18)	2.0 (38)	2.0 (29)	1.4 (40)	8.0 (29)	EFGHIJKLMNOP	113.3
TS 4028	4	2.6 (26)	2.1 (16)	1.9 (40)	1.4 (46)	8.0 (30)	FGHIJKLMNOPQ	112.9
R56BD188	ND	2.5 (40)	2.0 (34)	2.0 (24)	1.5 (25)	8.0 (31)	FGHIJKLMNOPQR	112.8
R46Bx161	6	2.6 (22)	2.0 (29)	1.9 (44)	1.4 (44)	7.9 (32)	GHIJKLMNOPGRS	112.1
R46Bx167	4	2.4 (42)	2.1 (22)	2.0 (23)	1.4 (48)	7.9 (34)	GHIJKLMNOPGRS	111.8
R46BD203	ND	2.3 (51)	2.0 (47)	2.0 (16)	1.6 (9)	7.9 (36)	GHIJKLMNOPGRS	111.8
R46Bx211	4.1	2.2 (54)	2.0 (41)	2.1 (6)	1.6 (10)	7.9 (37)	HIJKLMNOPGRS	111.5
R46Bx218	6	2.3 (49)	2.1 (18)	1.9 (38)	1.5 (28)	7.8 (41)	JKLMNOPGRS	110.9
R46Bx160	5	2.4 (43)	2.1 (21)	1.8 (49)	1.4 (35)	7.8 (44)	LMNOPGRS	110.5
R46Bx217	8	2.0 (55)	2.0 (46)	2.1 (4)	1.7 (3)	7.7 (46)	NOPGRS	109.4
R46Bx778	ND	2.6 (17)	1.9 (50)	1.7 (54)	1.4 (42)	7.7 (47)	NOPGRS	109.3
R56BD191	ND	2.5 (36)	2.0 (44)	1.9 (39)	1.3 (53)	7.7 (48)	OPGRS	108.8
R56BD202	ND	2.4 (47)	1.9 (55)	1.9 (33)	1.5 (33)	7.6 (49)	PGRS	108.3
R46Bx776	ND	2.6 (15)	2.0 (45)	1.7 (53)	1.3 (54)	7.6 (50)	PGRS	108.1
R46Bx775	ND	2.6 (20)	1.9 (51)	1.7 (55)	1.3 (51)	7.5 (52)	RST	107.0
R66BD108	ND	1.7 (56)	1.9 (54)	1.9 (46)	1.6 (7)	7.1 (55)	TU	101.4
MEAN		2.53	2.04	1.94	1.49	7.99		
CV		7.6	6.7	6.8	8.7	4.9		
LSD (0.1)		0.20	0.15	0.14	0.14	0.42		

Trial seeded at 25 lb/acre viable seed at Intermountain Research and Extension Center, Tulelake, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 2. 2008-2012 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 07/27/07

		2008	2009	2010	2011	2012	Average		% of
	FD	Yield	Yield	Yield	Yield	Yield			VERNAL
		Dry t/a							%
Released Varieties									
Archer III	5	8.6 (1)	8.3 (2)	7.5 (3)	9.8 (1)	8.7 (2)	8.6 (1)	A	129.4
PGI 459	4	8.5 (2)	8.3 (4)	7.8 (1)	9.3 (9)	9.0 (1)	8.6 (2)	A	129.3
DKA50-18	5	8.3 (11)	8.5 (1)	7.6 (2)	9.3 (10)	8.6 (3)	8.5 (3)	AB	127.6
WL 357HQ	5	8.3 (12)	8.1 (6)	7.2 (8)	9.2 (12)	8.4 (5)	8.2 (4)	BC	124.3
GrandStand	4	8.2 (20)	8.0 (10)	7.3 (6)	9.3 (5)	8.3 (10)	8.2 (5)	BCD	123.9
AmeriStand407TQ	4	8.1 (30)	8.0 (9)	7.2 (12)	9.3 (8)	8.4 (4)	8.2 (6)	BCD	123.9
Integra 8400	4	8.0 (34)	8.3 (3)	7.5 (4)	8.9 (22)	8.3 (8)	8.2 (7)	BCD	123.8
Integra 8300	3	8.3 (15)	8.1 (7)	7.2 (9)	9.1 (14)	8.2 (16)	8.2 (8)	BCDE	123.3
Legendairy	3	8.0 (33)	8.1 (5)	7.2 (11)	9.1 (13)	8.4 (7)	8.2 (9)	BCDE	123.1
Genoa	4	8.4 (6)	7.7 (27)	7.3 (5)	9.1 (16)	8.2 (12)	8.1 (10)	BCDE	122.9
MilkMaker ML	5	8.4 (3)	7.6 (37)	6.9 (31)	9.4 (4)	8.4 (6)	8.1 (11)	CDEF	122.7
AmeriStand444NT	4	8.4 (4)	7.7 (31)	7.2 (14)	9.2 (11)	8.1 (24)	8.1 (14)	CDEF	122.5
CW 500	5	8.2 (18)	7.9 (14)	6.8 (38)	9.1 (15)	8.3 (9)	8.1 (15)	CDEFG	121.6
PGI 424	4	8.3 (10)	7.9 (13)	7.0 (24)	8.9 (20)	7.9 (33)	8.0 (18)	CDEFGHIJ	120.7
Rebound 5	4	7.9 (38)	8.0 (8)	7.2 (13)	8.6 (33)	8.2 (13)	8.0 (19)	CDEFGHIJ	120.6
FSG 528SF	5	8.4 (7)	7.7 (26)	6.9 (35)	8.9 (21)	7.9 (35)	8.0 (24)	CDEFGHIJK	120.1
FSG 505	5	7.8 (46)	7.7 (25)	7.2 (7)	8.7 (29)	8.2 (18)	7.9 (25)	CDEFGHIJKL	119.5
Xtra-3	4	8.4 (5)	7.5 (45)	6.8 (41)	8.6 (31)	8.1 (20)	7.9 (30)	EFGHIJKLMN	119.0
WL 343HQ	4	7.6 (52)	7.7 (34)	6.9 (29)	8.6 (34)	8.0 (26)	7.8 (36)	GHIJKLMNOPQR	117.4
Magnum VI	4	7.8 (47)	7.8 (18)	6.8 (44)	8.7 (30)	7.8 (45)	7.8 (38)	GHIJKLMNOPQR	117.0
Dura 512	5	8.1 (24)	7.8 (21)	6.6 (48)	8.2 (49)	7.9 (38)	7.7 (41)	IJKLMNOPQR	116.4
WL 325 HQ	4	7.8 (48)	7.7 (32)	6.8 (42)	8.1 (52)	7.8 (40)	7.6 (45)	LMNOPQR	115.2
54V09	4	8.1 (29)	7.6 (39)	6.7 (46)	8.2 (45)	7.5 (54)	7.6 (47)	LMNOPQR	115.0
Mountaineer 2	5	7.9 (39)	7.3 (50)	6.6 (51)	8.3 (44)	7.8 (39)	7.6 (48)	MNOPQR	114.6
Prosementi	ND	8.1 (28)	7.2 (53)	6.3 (54)	8.2 (48)	8.1 (21)	7.6 (49)	NOPQR	114.2
MasterPiece	4	8.0 (37)	7.4 (49)	6.7 (45)	7.9 (55)	7.8 (43)	7.6 (51)	PQR	114.1
Everlast II	4	7.7 (51)	7.5 (43)	6.8 (43)	8.2 (50)	7.6 (51)	7.5 (52)	QR	113.8
FSG 408DP	4	7.6 (53)	7.3 (52)	6.8 (40)	8.0 (53)	7.8 (42)	7.5 (53)	R	113.1
Whitney	4	7.9 (41)	6.9 (54)	6.3 (53)	8.8 (26)	7.5 (53)	7.5 (54)	R	112.9
Vernal	2	6.7 (56)	6.5 (56)	5.6 (56)	7.3 (56)	7.0 (56)	6.6 (56)		100.0
Experimental Varieties									
R56Bx214	4	8.3 (9)	7.6 (38)	7.1 (19)	9.5 (2)	8.2 (15)	8.1 (12)	CDEF	122.6
R46Bx164	6	8.1 (26)	8.0 (11)	7.0 (23)	9.4 (3)	8.1 (22)	8.1 (13)	CDEF	122.6
R46Bx197	8	8.3 (8)	7.8 (17)	7.2 (16)	8.9 (24)	8.0 (29)	8.0 (16)	CDEFGH	121.3
R56BD190	ND	8.2 (19)	7.8 (24)	7.2 (15)	8.9 (23)	8.1 (25)	8.0 (17)	CDEFGHI	121.0
R56BD191	ND	8.3 (13)	7.8 (16)	7.1 (17)	9.1 (17)	7.7 (48)	8.0 (20)	CDEFGHIJ	120.6
R46Bx218	6	8.1 (31)	7.8 (15)	6.8 (39)	9.3 (6)	7.8 (41)	8.0 (21)	CDEFGHIJK	120.4
R56BD188	ND	8.2 (22)	8.0 (12)	7.2 (10)	8.5 (36)	8.0 (31)	8.0 (22)	CDEFGHIJK	120.3
R46Bx165	8.5	8.0 (36)	7.8 (20)	6.9 (32)	9.0 (19)	8.2 (17)	8.0 (23)	CDEFGHIJK	120.3
R46Bx160	5	7.9 (40)	7.8 (22)	7.1 (20)	9.0 (18)	7.8 (44)	7.9 (26)	CDEFGHIJKL	119.5
R46BD201	ND	8.2 (17)	7.8 (19)	7.0 (22)	8.5 (38)	8.0 (27)	7.9 (27)	DEFGHIJKL	119.5
R46Bx777	ND	8.1 (32)	7.8 (23)	7.1 (18)	8.4 (42)	8.2 (11)	7.9 (28)	DEFGHIJKLM	119.3
R46Bx163	4	8.1 (25)	7.4 (48)	6.9 (30)	8.8 (25)	8.2 (14)	7.9 (29)	DEFGHIJKLM	119.2
R46Bx162	8	8.2 (16)	7.7 (28)	7.0 (28)	8.4 (40)	8.0 (28)	7.9 (31)	EFGHIJKLMNO	118.8
R46Bx211	4.1	7.9 (44)	7.3 (51)	7.0 (25)	9.3 (7)	7.9 (37)	7.9 (32)	EFGHIJKLMNOP	118.7
R46Bx167	4	8.2 (23)	7.7 (29)	7.0 (27)	8.5 (37)	7.9 (34)	7.9 (33)	EFGHIJKLMNOPQ	118.5
R46BD203	ND	8.3 (14)	7.4 (47)	6.9 (33)	8.6 (32)	7.9 (36)	7.8 (34)	FGHIJKLMNOPQ	118.0
R56Bx212	6	7.9 (42)	7.5 (42)	6.8 (37)	8.6 (35)	8.1 (23)	7.8 (35)	GHIJKLMNOPQR	117.5
R46Bx778	ND	8.2 (21)	7.5 (41)	6.6 (50)	8.7 (27)	7.7 (47)	7.8 (37)	GHIJKLMNOPQR	117.1
R46Bx173	5	7.7 (50)	7.5 (44)	6.9 (36)	8.5 (39)	8.2 (19)	7.7 (39)	H IJKLMNOPQR	116.8
TS 4028	4	7.9 (43)	7.5 (40)	7.0 (26)	8.2 (47)	8.0 (30)	7.7 (40)	IJKLMNOPQR	116.5
R46Bx775	ND	8.1 (27)	7.7 (30)	7.0 (21)	8.1 (51)	7.5 (52)	7.7 (42)	IJKLMNOPQR	116.3
R46Bx161	6	7.5 (55)	7.7 (33)	6.9 (34)	8.4 (41)	7.9 (32)	7.7 (43)	JKLMNOPQR	116.0
R56BD202	ND	7.8 (45)	7.6 (35)	6.5 (52)	8.7 (28)	7.6 (49)	7.7 (44)	KLMNOPQR	115.7
R46Bx217	8	8.0 (35)	7.4 (46)	6.6 (47)	8.3 (43)	7.7 (46)	7.6 (46)	LMNOPQR	115.0
R46Bx776	ND	7.7 (49)	7.6 (36)	6.6 (49)	8.2 (46)	7.6 (50)	7.6 (50)	OPQR	114.1
R66BD108	ND	7.6 (54)	6.8 (55)	5.9 (55)	7.9 (54)	7.1 (55)	7.1 (55)	S	106.7
MEAN		8.05	7.69	6.93	8.71	7.99	7.87		
CV		5.8	4.5	4.5	8.7	4.9	3.8		
LSD (0.1)		0.49	0.37	0.33	0.81	0.42	0.32		

Trial seeded at 25 lb/acre viable seed at Intermountain Research and Extension Center, Tulelake, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 3. 2012 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 8/17/10

Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	YEAR		% of
	FD	12-Jun	13-Jul	14-Aug	19-Sep	TOTAL		VERNAL
		Dry t/a						%
Integra 8400	4	3.1 (2)	2.5 (2)	1.8 (21)	1.5 (20)	8.9 (1)	A	114.3
Archer III	5	2.8 (6)	2.5 (3)	1.9 (10)	1.6 (12)	8.9 (2)	AB	113.7
Lightening IV	4	2.7 (15)	2.4 (7)	2.1 (1)	1.6 (13)	8.8 (3)	ABC	113.3
R57M130 FG	5	2.7 (17)	2.5 (5)	2.0 (3)	1.7 (6)	8.8 (4)	ABC	112.8
Syngenta 6422Q	4	2.7 (18)	2.4 (14)	2.0 (5)	1.7 (5)	8.7 (5)	ABCD	111.7
R46Bx163	4	2.8 (7)	2.4 (10)	1.9 (15)	1.6 (16)	8.7 (6)	ABCD	111.6
WL 357 HQ	4	2.7 (14)	2.4 (8)	1.9 (9)	1.6 (18)	8.7 (7)	ABCDE	111.2
WL 363 HQ	5	2.5 (25)	2.5 (4)	2.0 (4)	1.7 (7)	8.7 (8)	ABCDE	111.0
Syngenta 6422Q-EMD	4	2.7 (13)	2.4 (15)	2.0 (8)	1.6 (15)	8.7 (9)	ABCDE	110.9
R47M120 FG	4	2.6 (20)	2.5 (6)	1.9 (18)	1.7 (2)	8.6 (10)	ABCDE	110.8
R46Bx162	4	2.8 (5)	2.4 (20)	1.9 (12)	1.5 (21)	8.6 (11)	ABCDE	110.6
HybriForce 2400	4	3.1 (1)	2.3 (23)	1.8 (22)	1.4 (30)	8.6 (12)	ABCDE	110.4
AmeriStand407TQ	4	2.8 (8)	2.4 (13)	1.9 (14)	1.5 (24)	8.6 (13)	ABCDEF	110.3
R48M153 FG	4	2.6 (22)	2.4 (9)	2.0 (6)	1.6 (14)	8.6 (14)	ABCDEF	110.2
R47M312 FG	4	2.6 (24)	2.4 (11)	1.9 (13)	1.6 (8)	8.5 (15)	BCDEFG	109.4
PGI 459	4	2.9 (4)	2.4 (17)	1.8 (23)	1.5 (22)	8.5 (16)	BCDEFGH	109.4
R57M129 FG	5	2.5 (26)	2.5 (1)	1.9 (17)	1.6 (11)	8.5 (17)	BCDEFGHI	109.2
Rebound 6.0	4	2.7 (19)	2.4 (12)	1.9 (11)	1.5 (23)	8.5 (18)	CDEFGHIJ	108.9
MasterPiece II	4	2.4 (29)	2.4 (19)	2.0 (2)	1.7 (1)	8.5 (19)	CDEFGHIJ	108.8
DG4210	4	2.5 (27)	2.4 (16)	2.0 (7)	1.6 (17)	8.4 (20)	DEFGHIJ	107.6
Integra 8300	3	2.7 (16)	2.4 (18)	1.8 (20)	1.5 (26)	8.4 (21)	DEFGHIJ	107.3
GrandStand	4	2.8 (9)	2.3 (25)	1.8 (26)	1.5 (25)	8.3 (22)	EFGHIJ	106.9
MS Sunstra 803	4	2.8 (10)	2.3 (24)	1.7 (28)	1.4 (28)	8.2 (23)	FGHIJK	105.6
Xtra-3	4	2.6 (21)	2.3 (27)	1.8 (24)	1.5 (19)	8.2 (24)	GHIJK	105.2
R56Bx212	5	2.3 (30)	2.3 (26)	1.9 (16)	1.7 (3)	8.2 (25)	HIJKL	104.7
R48W224 FG	4	2.3 (31)	2.3 (22)	1.9 (19)	1.7 (4)	8.2 (26)	IJKL	104.7
Minerva	5	2.4 (28)	2.3 (21)	1.8 (25)	1.6 (10)	8.1 (27)	JKL	104.3
Mountaneer II	5	2.6 (23)	2.3 (28)	1.7 (29)	1.4 (27)	8.0 (28)	KL	102.0
Dura 512	5	2.8 (11)	2.2 (29)	1.6 (30)	1.4 (29)	7.9 (29)	KL	101.8
Vernal	2	2.9 (3)	2.1 (30)	1.6 (31)	1.2 (31)	7.8 (30)	LM	100.0
Rugged	3	2.8 (12)	2.1 (32)	1.5 (32)	1.1 (32)	7.4 (31)	MN	95.4
R65BD278	6	1.8 (32)	2.1 (31)	1.8 (27)	1.6 (9)	7.2 (32)	N	92.4
MEAN		2.65	2.36	1.86	1.54	8.41		
CV		7.8	4.7	5.4	6.3	4.1		
LSD (0.1)		0.22	0.12	0.11	0.10	0.37		

Trial seeded at 25 lb/acre viable seed at Intermountain Research and Extension Center, Tulelake, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 4. 2011-2012 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 8/17/10

		2011	2012	Average		% of
	FD	Yield	Yield			VERNAL
			Dry t/a			%
Integra 8400	4	8.2 (8)	8.9 (1)	8.6 (1)	A	110.9
R57M130 FG	5	8.3 (4)	8.8 (4)	8.5 (2)	A B	110.5
MS Sunstra 803	4	8.8 (1)	8.2 (23)	8.5 (3)	A B C	110.0
HybriForce 2400	4	8.3 (3)	8.6 (12)	8.5 (4)	A B C D	109.5
WL 357 HQ	4	8.2 (7)	8.7 (7)	8.5 (5)	A B C D	109.5
Archer III	5	8.0 (14)	8.9 (2)	8.4 (6)	A B C D E	109.2
R57M129 FG	5	8.3 (2)	8.5 (17)	8.4 (7)	A B C D E	108.9
WL 363 HQ	5	8.2 (10)	8.7 (8)	8.4 (8)	A B C D E	108.9
PGI 459	4	8.2 (9)	8.5 (16)	8.4 (9)	A B C D E	108.4
AmeriStand407TQ	4	8.1 (12)	8.6 (13)	8.3 (10)	A B C D E F	108.0
Syngenta 6422Q	4	8.0 (17)	8.7 (5)	8.3 (11)	A B C D E F	108.0
R46Bx162	4	8.0 (13)	8.6 (11)	8.3 (12)	A B C D E F	107.9
DG4210	4	8.2 (5)	8.4 (20)	8.3 (13)	A B C D E F	107.8
R46Bx163	4	7.9 (20)	8.7 (6)	8.3 (14)	B C D E F	107.5
GrandStand	4	8.2 (6)	8.3 (22)	8.3 (15)	B C D E F	107.4
Lightening IV	4	7.7 (25)	8.8 (3)	8.3 (16)	B C D E F	107.4
R47M312 FG	4	8.0 (15)	8.5 (15)	8.3 (17)	C D E F G	107.0
Syngenta 6422Q-EMD	4	7.8 (23)	8.7 (9)	8.2 (18)	D E F G	106.6
R47M120 FG	4	7.8 (24)	8.6 (10)	8.2 (19)	D E F G H	106.4
Rebound 6.0	4	7.9 (19)	8.5 (18)	8.2 (20)	E F G H I	106.2
MasterPiece II	4	7.9 (21)	8.5 (19)	8.2 (21)	E F G H I	106.1
Integra 8300	3	7.8 (22)	8.4 (21)	8.1 (22)	F G H I J	104.9
R48M153 FG	4	7.6 (29)	8.6 (14)	8.1 (23)	F G H I J	104.8
R56Bx212	5	7.9 (18)	8.2 (25)	8.0 (24)	G H I J	104.1
Dura 512	5	8.1 (11)	7.9 (29)	8.0 (25)	G H I J	103.9
Xtra-3	4	7.7 (26)	8.2 (24)	8.0 (26)	H I J K	103.2
Mountaneer II	5	8.0 (16)	8.0 (28)	8.0 (27)	I J K L	103.1
R48W224 FG	4	7.7 (27)	8.2 (26)	7.9 (28)	J K L	102.7
Minerva	5	7.4 (31)	8.1 (27)	7.8 (29)	K L	100.4
Vernal	2	7.6 (28)	7.8 (30)	7.7 (30)	L	100.0
Rugged	3	7.4 (32)	7.4 (31)	7.4 (31)	M	95.9
R65BD278	6	7.4 (30)	7.2 (32)	7.3 (32)	M	94.6
MEAN		7.96	8.41	8.18		
CV		4.0	4.1	2.8		
LSD (0.1)		0.34	0.37	0.25		

Trial seeded at 25 lb/acre viable seed at Intermountain Research and Extension Center, Tulelake, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 5. 2012 Yields, UC Davis Alfalfa Cultivar Trial (Trial planted Nov. 2, 2011)

Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	YEAR		% of
		24-May	18-Jun	23-Jul	20-Aug	TOTAL		CUF 10 ¹
	FD			Dry t/a				%
Released Varieties								
Cuf 101	9	1.6 (13)	1.6 (4)	2.1 (5)	1.9 (2)	7.2 (2)	AB	100.0
WL 440HQ	6	1.6 (15)	1.5 (8)	2.2 (1)	1.9 (3)	7.2 (3)	AB	99.8
Catalina	9	1.7 (3)	1.5 (13)	2.1 (7)	1.9 (5)	7.2 (4)	ABC	99.1
Westar	8	1.7 (6)	1.6 (2)	2.0 (16)	1.8 (7)	7.1 (5)	ABCD	98.7
FGI R96Bx308	ND	1.6 (12)	1.5 (12)	2.2 (2)	1.7 (16)	7.1 (7)	ABCDE	98.0
Saltana	9	1.6 (14)	1.5 (14)	2.1 (6)	1.8 (8)	7.0 (8)	ABCDEF	96.9
6R100	6	1.4 (36)	1.5 (11)	2.2 (3)	1.8 (6)	6.9 (9)	ABCDEFG	95.8
GrandSlam	8	1.6 (19)	1.5 (7)	2.0 (12)	1.7 (17)	6.8 (10)	ABCDEFGH	94.0
6610N	6	1.5 (21)	1.4 (25)	2.0 (15)	1.9 (4)	6.7 (12)	ABCDEFGHI	93.2
Integra 8600	6	1.6 (17)	1.5 (6)	1.9 (19)	1.5 (28)	6.6 (13)	ABCDEFGHIJ	91.3
FGI R66Bx311	ND	1.6 (18)	1.4 (15)	2.0 (8)	1.5 (29)	6.6 (14)	ABCDEFGHIJ	91.1
HybriForce-2600	6	1.8 (1)	1.3 (37)	1.9 (24)	1.6 (25)	6.6 (16)	ABCDEFGHIJ	90.9
FGI R56Bx214	ND	1.4 (34)	1.4 (16)	2.0 (11)	1.7 (13)	6.6 (17)	BCDEFGHIJ	90.7
AmeriStand 803T (9	1.6 (16)	1.4 (20)	1.8 (31)	1.8 (12)	6.6 (18)	BCDEFGHIJ	90.7
DS611	6	1.7 (4)	1.4 (31)	1.8 (32)	1.6 (23)	6.5 (20)	BCDEFGHIJKL	89.4
WL 454HQ.RR	6	1.4 (27)	1.5 (9)	2.0 (10)	1.5 (39)	6.4 (21)	BCDEFGHIJKL	88.9
AmeriStand 803T	8	1.7 (7)	1.5 (10)	1.7 (36)	1.5 (37)	6.4 (22)	BCDEFGHIJKL	88.3
FGI R57W213	ND	1.3 (40)	1.4 (30)	1.9 (21)	1.8 (10)	6.3 (23)	CDEFGHIJKLM	87.9
DKA65-10RR	6	1.6 (11)	1.4 (17)	1.7 (35)	1.5 (30)	6.3 (24)	CDEFGHIJKLM	87.6
Arriba II	6	1.6 (9)	1.3 (34)	1.7 (39)	1.6 (21)	6.3 (26)	DEFGHIJKLMN	87.1
4R200	4	1.5 (26)	1.3 (32)	2.0 (14)	1.5 (36)	6.3 (27)	EFGHIJKLMN	86.6
FGI R57K138	ND	1.4 (35)	1.3 (36)	1.8 (29)	1.6 (26)	6.1 (30)	GHIJKLMNO	84.2
Revolt (RR)	6	1.5 (25)	1.3 (39)	1.6 (43)	1.6 (20)	6.0 (32)	HIJKLMNO	83.2
DS815	8	1.3 (39)	1.4 (24)	1.9 (27)	1.4 (40)	6.0 (33)	HIJKLMNO	83.0
FGI R65BD279	ND	1.4 (29)	1.4 (18)	1.6 (41)	1.5 (34)	6.0 (34)	HIJKLMNO	83.0
Gunner	5	1.1 (47)	1.3 (37)	1.8 (34)	1.8 (9)	6.0 (35)	HIJKLMNO	82.4
8R100	8.5	1.5 (23)	1.2 (48)	1.8 (30)	1.5 (35)	6.0 (36)	HIJKLMNO	82.4
FGI R47OK215	ND	1.3 (43)	1.3 (33)	1.7 (38)	1.6 (22)	5.9 (37)	HIJKLMNO	82.2
La Jolla	9	1.4 (37)	1.4 (23)	1.9 (20)	1.3 (47)	5.9 (38)	IJKLMNO	82.1
AmeriStand 803T -	9	1.3 (42)	1.4 (27)	1.6 (45)	1.5 (32)	5.7 (43)	JKLMNO	79.6
Integra 8800	8	1.3 (41)	1.3 (43)	1.8 (33)	1.4 (46)	5.7 (44)	KLMNO	78.8
FGI R57K337	ND	1.3 (44)	1.2 (46)	1.6 (46)	1.6 (24)	5.6 (45)	L MNO	77.8
Pacifico	8	1.2 (45)	1.3 (42)	1.5 (48)	1.5 (38)	5.5 (47)	NO	75.6
Tango	6	1.2 (46)	1.2 (44)	1.7 (40)	1.3 (48)	5.3 (48)	O	74.0
Experimental Varieties								
SW 9106	9	1.7 (5)	1.6 (3)	2.1 (4)	2.0 (1)	7.4 (1)	A	102.6
SW 9107	9	1.8 (2)	1.5 (5)	2.0 (13)	1.8 (11)	7.1 (6)	ABCDE	98.1
SW 920	9	1.5 (22)	1.7 (1)	1.9 (22)	1.7 (18)	6.7 (11)	ABCDEF GHI	93.4
DS107444	7	1.6 (8)	1.4 (26)	1.9 (26)	1.7 (19)	6.6 (15)	ABCDEFGH IJ	90.9
SW 8105	8	1.4 (32)	1.4 (29)	2.0 (9)	1.7 (14)	6.5 (19)	BCDEFGH IJK	90.1
UC-412	9	1.6 (10)	1.4 (21)	1.9 (23)	1.4 (42)	6.3 (25)	CDEFGH IJKLM	87.6
UC-409	9	1.4 (30)	1.4 (27)	1.9 (18)	1.5 (33)	6.2 (28)	EFGH IJKLMN	86.4
UC-410	9	1.4 (28)	1.3 (35)	1.8 (28)	1.6 (27)	6.2 (29)	F GHIJKLMNO	85.4
UC-413	9	1.4 (33)	1.4 (19)	1.9 (25)	1.4 (43)	6.1 (31)	GHIJKLMNO	84.1
SW 910	9	1.1 (48)	1.2 (47)	2.0 (17)	1.7 (15)	5.9 (39)	IJKLMNO	82.0
SW 900	9	1.5 (20)	1.4 (22)	1.6 (44)	1.4 (45)	5.9 (40)	JKLMNO	81.3
UC-415	9	1.4 (31)	1.2 (45)	1.7 (37)	1.5 (31)	5.9 (41)	JKLMNO	81.3
UC-414	9	1.5 (24)	1.3 (40)	1.6 (42)	1.4 (41)	5.8 (42)	JKLMNO	80.7
UC-411	9	1.3 (38)	1.3 (41)	1.5 (47)	1.4 (44)	5.5 (46)	MNO	76.3
MEAN		1.48	1.39	1.86	1.61	6.34		
CV		20.2	12.3	15.6	14.4	11.3		
LSD (0.1)		0.35	0.20	0.35	0.28	0.85		

Trial seeded at 25 lb/acre viable seed on Yolo clay loam soil at the Univ. of California Agronomy Farm, Davis, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fishers (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 6. 2012 Yields, Modesto Alfalfa Cultivar Trial. Trial planted 11/7/2011
 Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	Cut 5	YEAR		% of
		21-Jun	19-Jul	15-Aug	12-Sep	19-Oct	TOTAL		CUF101
	FD	Dry t/a							%
Released Varieties									
Artesia Sunrise	7	0.98 (8)	1.7 (1)	1.5 (2)	1.2 (13)	1.0 (34)	6.4 (2)	AB	107.5
Arriba II (EM-09)	6	1.1 (1)	1.5 (10)	1.5 (1)	1.2 (11)	1.1 (26)	6.3 (3)	ABC	106.9
Westar	8	1.0 (7)	1.5 (7)	1.4 (5)	1.2 (5)	1.2 (3)	6.3 (4)	ABCD	106.1
Tango	6	1.0 (4)	1.6 (3)	1.3 (8)	1.2 (6)	1.1 (15)	6.2 (6)	ABCDEF	105.0
Integra 8600	6	0.9 (15)	1.6 (6)	1.3 (16)	1.3 (1)	1.1 (22)	6.2 (7)	ABCDEFGF	104.1
La Jolla	9	1.0 (11)	1.6 (2)	1.3 (9)	1.2 (7)	1.1 (16)	6.2 (8)	ABCDEFGF	104.1
Transition 6.1	6	1.0 (3)	1.5 (11)	1.3 (10)	1.2 (16)	1.1 (18)	6.1 (9)	ABCDEFGFH	102.8
Saltana	9	1.0 (6)	1.4 (32)	1.3 (15)	1.1 (25)	1.2 (1)	6.1 (10)	ABCDEFGH	102.0
DS815	8	0.9 (19)	1.5 (18)	1.3 (12)	1.2 (8)	1.1 (10)	6.0 (11)	ABCDEFGH	101.5
Dura 843	8	1.0 (9)	1.5 (16)	1.3 (23)	1.1 (24)	1.1 (13)	6.0 (12)	ABCDEFGHIJ	100.8
6R100	6	1.0 (10)	1.5 (8)	1.3 (12)	1.2 (4)	0.9 (51)	6.0 (13)	ABCDEFGHIJ	100.8
CUF101	9	0.9 (16)	1.4 (35)	1.3 (20)	1.2 (9)	1.2 (5)	5.9 (14)	ABCDEFGHIJK	100.0
AmeriStand 803T	8	0.9 (22)	1.4 (35)	1.3 (11)	1.2 (14)	1.2 (6)	5.9 (15)	ABCDEFGHIJK	99.9
DS611	6	0.9 (17)	1.5 (23)	1.2 (29)	1.2 (15)	1.1 (9)	5.9 (16)	ABCDEFGHIJK	99.9
DS919	9	0.8 (46)	1.5 (13)	1.3 (21)	1.2 (10)	1.1 (11)	5.8 (17)	ABCDEFGHIJKL	98.5
AmeriStand 901TS	9	0.8 (43)	1.4 (26)	1.3 (14)	1.2 (3)	1.1 (25)	5.8 (18)	ABCDEFGHIJKL	98.4
Dura 512	5	0.9 (21)	1.5 (9)	1.3 (17)	1.1 (26)	1.0 (39)	5.8 (19)	ABCDEFGHIJKL	98.3
WL 440HQ	6	0.9 (20)	1.5 (17)	1.3 (19)	1.0 (45)	1.1 (28)	5.8 (23)	CDEFGHIJKLMN	97.1
WL 454HQ.RR	6	0.9 (23)	1.5 (21)	1.3 (24)	1.1 (41)	1.1 (19)	5.8 (24)	CDEFGHIJKLMN	97.1
6610N	6	0.8 (35)	1.4 (33)	1.4 (6)	1.1 (29)	1.0 (32)	5.8 (25)	CDEFGHIJKLMN	96.9
4C810	8	0.9 (33)	1.5 (21)	1.3 (28)	1.1 (27)	1.1 (30)	5.7 (26)	CDEFGHIJKLMN	96.8
DKA65-10RR	6	0.9 (28)	1.5 (20)	1.3 (25)	1.2 (18)	0.9 (50)	5.7 (27)	DEFGHIJKLMNO	96.1
Arriba II(Optimize Gold+)	6	0.8 (36)	1.4 (27)	1.2 (31)	1.1 (23)	1.1 (20)	5.7 (28)	DEFGHIJKLMNO	96.0
Pacifico	8	1.0 (13)	1.4 (30)	1.2 (30)	1.1 (35)	1.0 (37)	5.7 (29)	DEFGHIJKLMNO	96.0
HybridForce-800	8	0.9 (30)	1.4 (29)	1.2 (36)	1.1 (22)	1.1 (29)	5.7 (30)	EFGHIJKLMNO	95.4
Integra 8800	8	0.9 (26)	1.3 (43)	1.3 (26)	1.1 (37)	1.1 (17)	5.7 (31)	EFGHIJKLMNO	95.2
Revolt	6	1.0 (2)	1.5 (23)	1.1 (42)	1.0 (46)	0.9 (49)	5.6 (32)	FGHIJKLMNO	94.8
Arriba II	6	0.9 (31)	1.4 (38)	1.2 (41)	1.1 (21)	1.1 (22)	5.6 (33)	GHIJKLMNO	94.7
Desert Sun 8.10RR	8	0.9 (26)	1.4 (28)	1.2 (39)	1.1 (31)	1.0 (47)	5.5 (36)	HIJKLMNO	93.3
GrandSlam	8	0.8 (38)	1.3 (44)	1.2 (36)	1.1 (39)	1.1 (21)	5.5 (40)	IJKLMNOP	92.2
Trifecta		0.9 (25)	1.4 (37)	1.2 (34)	1.0 (47)	1.0 (43)	5.5 (41)	IJKLMNOP	92.1
Trifecta II		0.9 (24)	1.4 (31)	1.3 (22)	1.0 (51)	0.9 (52)	5.5 (42)	IJKLMNOP	91.9
Catalina	9	0.8 (37)	1.3 (51)	1.2 (35)	1.1 (33)	1.1 (14)	5.4 (43)	IJKLMNOP	91.8
WL 550.RR	8	0.7 (48)	1.4 (39)	1.2 (40)	1.1 (43)	1.1 (27)	5.4 (44)	JKLMNOP	91.1
Gunner	5	0.8 (41)	1.4 (34)	1.1 (47)	1.1 (44)	1.0 (46)	5.3 (47)	LMNOP	89.1
8R100	8.5	0.7 (51)	1.3 (45)	1.0 (52)	1.0 (49)	1.0 (36)	5.1 (51)	OP	86.1
Experimental Varieties									
DS098217	7	0.9 (14)	1.6 (4)	1.4 (3)	1.3 (2)	1.2 (7)	6.4 (1)	A	108.0
FGI R97T710		1.0 (5)	1.5 (12)	1.4 (4)	1.2 (12)	1.2 (2)	6.3 (5)	ABCDE	105.4
FGI R57W213		0.9 (32)	1.6 (5)	1.3 (7)	1.1 (36)	1.0 (40)	5.8 (20)	ABCDEFGH	98.2
FGI R57K337		0.9 (18)	1.5 (14)	1.3 (17)	1.1 (20)	1.0 (44)	5.8 (21)	ABCDEFGHIJKLMN	98.0
FGI R66Bx311		0.9 (29)	1.4 (25)	1.3 (27)	1.2 (19)	1.1 (31)	5.8 (22)	BCDEFGHIJKLMN	97.6
FGI R56Bx214		1.0 (12)	1.3 (42)	1.2 (33)	1.2 (17)	0.9 (48)	5.6 (34)	GHIJKLMNO	94.5
SW 8105	8	0.7 (47)	1.4 (40)	1.2 (32)	1.1 (37)	1.1 (8)	5.6 (35)	HIJKLMNO	93.6
FGI R57K138		0.8 (34)	1.5 (19)	1.2 (38)	1.1 (42)	1.0 (42)	5.5 (37)	HIJKLMNO	93.2
FGI R65BD279		0.8 (40)	1.5 (14)	1.1 (45)	1.0 (47)	1.1 (24)	5.5 (38)	HIJKLMNO	93.0
SW 920	9	0.8 (39)	1.3 (48)	1.1 (43)	1.1 (30)	1.2 (4)	5.5 (39)	HIJKLMNO	93.0
SW 9107	9	0.8 (44)	1.3 (49)	1.1 (48)	1.1 (34)	1.1 (12)	5.4 (45)	JKLMNOP	90.7
FGI R96Bx308		0.8 (45)	1.3 (41)	1.1 (43)	1.1 (40)	1.0 (38)	5.4 (46)	KLMNOP	90.2
FGI R97T715		0.8 (42)	1.3 (47)	1.1 (50)	1.1 (32)	1.0 (41)	5.2 (48)	LMNOP	88.3
SW 910	9	0.7 (49)	1.3 (50)	1.1 (49)	1.1 (28)	1.0 (35)	5.2 (49)	MNOP	87.9
SW 900	9	0.7 (50)	1.3 (46)	1.1 (46)	1.0 (49)	1.0 (33)	5.2 (50)	NOP	87.9
SW 9106	9	0.7 (52)	1.2 (52)	1.1 (51)	1.0 (52)	1.0 (45)	4.9 (52)	P	82.6
MEAN		0.87	1.43	1.24	1.13	1.06	5.73		
CV		18.8	10.4	12.0	10.3	10.5	9.0		
LSD (0.1)		NS	0.18	0.18	0.14	0.13	0.61		

Trial seeded at 25 lb/acre viable seed on Stanislaus sandy soil at Stanislaus Farm Supply, Modesto CA.
 Entries followed by the same letter are not significantly different at the 10% probability level according to Fishers (protected) LSD.
 FD = Fall Dormancy reported by seed companies.

TABLE 7. 2012 YIELDS, UC KEARNEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/14/10

Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	Cut 5	Cut 6	Cut 7	YEAR		% of
		24-Apr	22-May	19-Jun	17-Jul	16-Aug	13-Sep	24-Oct	TOTAL		CUF 101
	FD	Dry t/a									%
Released Varieties											
Integra 8900	9	2.6 (3)	1.9 (1)	1.9 (2)	2.0 (6)	2.0 (4)	1.5 (8)	1.4 (3)	13.3 (2)	AB	133.1
WL 656HQ	9	2.6 (5)	1.9 (4)	1.9 (4)	2.1 (2)	2.0 (9)	1.6 (2)	1.4 (5)	13.2 (3)	ABC	132.0
AmeriStand 803T	8	2.5 (6)	1.8 (7)	1.8 (6)	1.9 (9)	2.0 (5)	1.5 (7)	1.3 (15)	13.0 (5)	ABCDE	129.6
SW 9812	9	2.4 (15)	1.9 (6)	1.8 (5)	1.9 (12)	2.0 (7)	1.5 (11)	1.3 (8)	12.8 (7)	ABCDEF	127.9
AmeriStand 901TS	9	2.3 (25)	1.7 (37)	1.8 (10)	2.0 (8)	2.0 (2)	1.5 (6)	1.3 (6)	12.7 (8)	ABCDEF G	126.6
SW 9821	9	2.4 (18)	1.8 (20)	1.7 (17)	1.9 (10)	1.9 (13)	1.4 (19)	1.3 (21)	12.5 (14)	BCDEFGHIJ	124.5
Integra 8800	8	2.4 (9)	1.8 (14)	1.7 (25)	1.9 (11)	1.9 (20)	1.4 (32)	1.2 (24)	12.3 (15)	CDEFGHIJK	123.1
Pacifico	8	2.2 (35)	1.7 (27)	1.8 (11)	2.0 (4)	1.9 (15)	1.4 (24)	1.2 (28)	12.3 (16)	CDEFGHIJK	122.9
Sunquest	9.5	2.5 (7)	1.8 (26)	1.6 (39)	1.6 (37)	1.9 (14)	1.5 (10)	1.3 (9)	12.3 (17)	DEFGHIJK	122.6
Mycogen 4N900	9	2.2 (34)	1.8 (18)	1.7 (16)	1.9 (12)	1.9 (19)	1.5 (16)	1.2 (27)	12.2 (20)	DEFGHIJKL	122.0
SW 900	9	2.3 (29)	1.8 (11)	1.6 (38)	1.6 (39)	1.9 (16)	1.6 (4)	1.4 (4)	12.2 (21)	DEFGHIJKLM	121.9
SW 9828	9	2.4 (17)	1.7 (32)	1.7 (31)	1.7 (31)	1.8 (26)	1.4 (23)	1.3 (18)	12.0 (26)	F GHI J K L M N	119.8
SW 9813	9	2.4 (14)	1.7 (30)	1.6 (36)	1.7 (35)	1.7 (36)	1.5 (18)	1.2 (23)	11.9 (27)	F GHI J K L M N O	118.9
SW 9711	9	2.2 (41)	1.6 (46)	1.7 (24)	1.7 (34)	1.8 (25)	1.4 (21)	1.3 (16)	11.7 (34)	HI J K L M N O P	117.2
Grand Slam	4	2.3 (30)	1.8 (16)	1.7 (33)	1.6 (42)	1.7 (39)	1.4 (35)	1.1 (36)	11.6 (37)	J K L M N O P	115.7
6610N	6	2.3 (26)	1.8 (8)	1.6 (45)	1.6 (38)	1.7 (40)	1.3 (43)	1.1 (44)	11.5 (38)	K L M N O P	114.5
NuMex	7	2.3 (20)	1.8 (25)	1.6 (37)	1.6 (44)	1.7 (42)	1.3 (42)	1.1 (41)	11.4 (39)	K L M N O P	114.4
UC Impalo	9	2.1 (46)	1.7 (42)	1.7 (26)	1.7 (27)	1.8 (32)	1.3 (39)	1.1 (37)	11.4 (41)	K L M N O P	114.0
SW 9816	9	2.1 (45)	1.6 (43)	1.6 (42)	1.7 (36)	1.8 (34)	1.4 (33)	1.2 (34)	11.3 (43)	M N O P	112.7
Dura 843	8	2.2 (40)	1.7 (41)	1.5 (47)	1.5 (46)	1.7 (43)	1.3 (39)	1.1 (42)	11.0 (45)	OP	109.8
SW 9803	9	2.2 (32)	1.6 (44)	1.5 (46)	1.6 (43)	1.7 (45)	1.2 (46)	1.0 (47)	11.0 (46)	OP	109.8
HybriForce-800	8	2.4 (13)	1.6 (47)	1.6 (43)	1.5 (47)	1.6 (47)	1.2 (48)	1.0 (46)	11.0 (47)	P	109.5
CUF 101	9	1.9 (48)	1.5 (48)	1.4 (48)	1.3 (48)	1.6 (48)	1.2 (47)	1.1 (43)	10.0 (48)	Q	100.0
Experimental Varieties											
FG 96T706	9	2.6 (2)	1.8 (23)	1.9 (1)	2.1 (1)	2.1 (1)	1.6 (3)	1.4 (2)	13.5 (1)	A	134.9
FG R97T708	9	2.3 (27)	1.9 (2)	1.8 (8)	2.0 (3)	2.0 (6)	1.6 (1)	1.4 (1)	13.1 (4)	ABCD	130.5
CW 068068	8	2.6 (4)	1.9 (5)	1.7 (20)	1.7 (28)	2.0 (3)	1.6 (5)	1.3 (7)	12.8 (6)	ABCDEF	128.1
CW 059051	9	2.4 (15)	1.8 (23)	1.9 (3)	2.0 (7)	1.9 (17)	1.5 (13)	1.3 (18)	12.7 (9)	ABCDEF G	126.6
DS097040	9	2.6 (1)	1.9 (3)	1.8 (7)	1.9 (15)	1.9 (21)	1.4 (28)	1.2 (31)	12.6 (10)	ABCDEF G H	126.4
FG R97T704	9	2.2 (31)	1.8 (12)	1.8 (9)	2.0 (5)	2.0 (9)	1.5 (15)	1.3 (13)	12.6 (11)	ABCDEF G H I	126.1
AmeriStand 901STQ(EMD)	9	2.3 (22)	1.8 (13)	1.8 (13)	1.8 (19)	2.0 (12)	1.5 (9)	1.3 (14)	12.5 (12)	BCDEFGHIJ	125.0
FG R97T707	9	2.3 (21)	1.7 (31)	1.8 (12)	1.9 (16)	2.0 (8)	1.5 (14)	1.3 (17)	12.5 (13)	BCDEFGHIJ	124.9
FG R97T701	9	2.1 (44)	1.8 (19)	1.7 (22)	1.9 (17)	2.0 (9)	1.5 (12)	1.3 (11)	12.2 (18)	DEFGHIJK	122.4
UC 469	9	2.3 (28)	1.8 (10)	1.8 (14)	1.8 (24)	1.8 (22)	1.4 (20)	1.3 (12)	12.2 (19)	DEFGHIJK	122.3
FG R96Bx308	9	2.2 (37)	1.8 (21)	1.7 (30)	1.8 (23)	1.9 (18)	1.5 (17)	1.3 (10)	12.1 (22)	EFGHIJKLM	121.1
UC 470	9	2.2 (38)	1.8 (15)	1.8 (15)	1.9 (12)	1.8 (23)	1.4 (25)	1.2 (25)	12.1 (23)	EFGHIJKLM	120.6
UC 471	9	2.3 (24)	1.7 (28)	1.7 (17)	1.8 (26)	1.8 (29)	1.4 (22)	1.2 (22)	12.0 (24)	EFGHIJKLM	120.5
DS385	8	2.4 (12)	1.7 (29)	1.7 (21)	1.8 (20)	1.7 (37)	1.4 (31)	1.2 (35)	12.0 (25)	F GHI J K L M	120.0
FG R96Bx304	9	2.4 (11)	1.8 (22)	1.7 (22)	1.7 (30)	1.8 (35)	1.3 (37)	1.1 (39)	11.9 (28)	GHIJKLMNOP	118.5
FG R97T715	9	2.2 (39)	1.7 (34)	1.7 (32)	1.9 (18)	1.8 (24)	1.4 (26)	1.2 (30)	11.8 (29)	GHIJKLMNOP	118.2
DS097569	8	2.5 (8)	1.8 (9)	1.6 (35)	1.6 (41)	1.8 (31)	1.3 (41)	1.2 (32)	11.8 (30)	GHIJKLMNOP	118.2
FG R97T710	9	2.2 (42)	1.7 (39)	1.7 (34)	1.8 (22)	1.8 (30)	1.4 (27)	1.3 (18)	11.8 (31)	GHIJKLMNOP	117.5
DS097645	10	2.3 (23)	1.7 (36)	1.7 (27)	1.8 (21)	1.8 (33)	1.3 (38)	1.1 (38)	11.8 (32)	GHIJKLMNOP	117.5
FG R96Bx303	9	2.2 (36)	1.7 (34)	1.7 (28)	1.8 (25)	1.8 (28)	1.4 (36)	1.2 (29)	11.7 (33)	GHIJKLMNOP	117.4
DS097643	9	2.3 (19)	1.8 (17)	1.7 (19)	1.7 (33)	1.7 (41)	1.3 (44)	1.1 (40)	11.7 (35)	IJKLMNOP	117.0
UC 493	9	2.2 (33)	1.7 (38)	1.7 (28)	1.7 (32)	1.7 (38)	1.4 (30)	1.2 (26)	11.7 (36)	IJKLMNOP	117.0
DS097041	9	2.4 (10)	1.7 (33)	1.6 (40)	1.5 (45)	1.7 (44)	1.4 (28)	1.1 (45)	11.4 (40)	KLMNOP	114.3
FG R97M711	9	2.1 (47)	1.7 (40)	1.6 (44)	1.6 (40)	1.8 (27)	1.4 (34)	1.2 (33)	11.3 (42)	LMNOP	112.7
FG R96Bx301	9	2.1 (43)	1.6 (45)	1.6 (41)	1.7 (29)	1.7 (46)	1.27 (45)	1.0 (48)	11.1 (44)	NOP	110.6
MEAN		2.31	1.75	1.70	1.79	1.84	1.42	1.22	12.03		
CV		8.2	7.5	8.1	14.9	6.9	5.9	8.2	6.6		
LSD (0.1)		0.22	0.15	0.16	0.32	0.15	0.10	0.12	0.94		

Trial seeded at 25 lb/acre viable seed on Hanford fine sandy loam soil at the Univ. of Calif. Kearney Agricultural Center, Parlier, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 8. 2011-2012 YIELDS. UC KEARNEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/14/2010

		2011	2012	Average		% of
	FD	Yield	Yield			CUF 101
			Dry t/a			%
Released Varieties						
Mycogen 4N900	9	13.5 (1)	12.2 (20)	12.8 (4)	A B	122.4
WL 656HQ	9	12.4 (15)	13.2 (3)	12.8 (5)	A B C	122.1
Integra 8800	8	13.3 (2)	12.3 (15)	12.8 (6)	A B C	122.0
AmeriStand 803T	8	12.6 (9)	13.0 (5)	12.8 (7)	A B C	121.8
Integra 8900	9	12.1 (23)	13.3 (2)	12.7 (8)	A B C D	121.4
AmeriStand 901TS	9	12.8 (7)	12.7 (8)	12.7 (9)	A B C D E	121.2
SW 9812	9	12.5 (12)	12.8 (7)	12.6 (10)	A B C D E F	120.6
SW 9828	9	12.9 (6)	12.0 (26)	12.4 (15)	A B C D E F G H I	118.5
SW 9821	9	12.2 (20)	12.5 (14)	12.3 (17)	A B C D E F G H I J	117.5
Pacifico	8	12.3 (19)	12.3 (16)	12.3 (18)	A B C D E F G H I J	117.3
SW 9813	9	12.0 (26)	11.9 (27)	12.0 (28)	C D E F G H I J K L	114.0
Grand Slam	4	12.1 (25)	11.6 (37)	11.8 (32)	F G H I J K L M	112.6
Sunquest	9.5	11.3 (45)	12.3 (17)	11.8 (33)	G H I J K L M	112.2
6610N	6	11.9 (29)	11.5 (38)	11.7 (36)	G H I J K L M	111.5
SW 9711	9	11.5 (42)	11.7 (34)	11.6 (38)	H I J K L M	110.9
SW 9816	9	11.9 (30)	11.3 (43)	11.6 (39)	H I J K L M	110.6
NuMex	7	11.7 (35)	11.4 (39)	11.6 (40)	I J K L M	110.4
SW 900	9	10.8 (48)	12.2 (21)	11.5 (42)	J K L M	109.7
UC Impalo	9	11.6 (40)	11.4 (41)	11.5 (43)	J K L M	109.6
HybriForce-800	8	11.8 (33)	11.0 (47)	11.4 (44)	K L M	108.6
SW 9803	9	11.8 (34)	11.0 (46)	11.4 (45)	K L M	108.6
Dura 843	8	11.7 (37)	11.0 (45)	11.3 (46)	L M N	107.9
CUF 101	9	11.0 (46)	10.0 (48)	10.5 (48)	N	100.0
Experimental Varieties						
FG R97T704	9	13.3 (3)	12.6 (11)	12.9 (1)	A	123.3
FG 96T706	9	12.4 (17)	13.5 (1)	12.9 (2)	A	123.2
DS097040	9	13.1 (4)	12.6 (10)	12.9 (3)	A B	122.8
CW 059051	9	12.4 (16)	12.7 (9)	12.5 (11)	A B C D E F G	119.4
FG R97T708	9	11.9 (32)	13.1 (4)	12.5 (12)	A B C D E F G H	118.9
CW 068068	8	12.1 (24)	12.8 (6)	12.4 (13)	A B C D E F G H I	118.7
DS385	8	12.9 (5)	12.0 (25)	12.4 (14)	A B C D E F G H I	118.6
UC 469		12.4 (13)	12.2 (19)	12.3 (16)	A B C D E F G H I J	117.6
Ameristand 901ST	9	12.0 (27)	12.5 (12)	12.3 (19)	A B C D E F G H I J K	116.9
FG R96Bx303	9	12.5 (10)	11.7 (33)	12.1 (20)	A B C D E F G H I J K L	115.6
UC 470		12.2 (21)	12.1 (23)	12.1 (21)	A B C D E F G H I J K L	115.6
DS097643	9	12.5 (11)	11.7 (35)	12.1 (22)	A B C D E F G H I J K L	115.4
FG R97T701	9	11.9 (31)	12.2 (18)	12.1 (23)	A B C D E F G H I J K L	115.2
FG R97T707	9	11.7 (38)	12.5 (13)	12.1 (24)	A B C D E F G H I J K L	115.1
DS097645	10	12.4 (14)	11.8 (32)	12.1 (25)	A B C D E F G H I J K L	115.1
UC 471		12.0 (28)	12.0 (24)	12.0 (26)	B C D E F G H I J K L	114.6
FG R97T715	9	12.2 (22)	11.8 (29)	12.0 (27)	B C D E F G H I J K L	114.4
DS097041	9	12.3 (18)	11.4 (40)	11.9 (29)	D E F G H I J K L M	113.3
FG R96Bx308	9	11.6 (41)	12.1 (22)	11.8 (30)	E F G H I J K L M	112.8
FG R96Bx301	9	12.6 (8)	11.1 (44)	11.8 (31)	E F G H I J K L M	112.8
FG R97T710	9	11.7 (36)	11.8 (31)	11.7 (34)	G H I J K L M	111.8
FG R96Bx304	9	11.6 (39)	11.9 (28)	11.7 (35)	G H I J K L M	111.7
DS097569	8	11.5 (43)	11.8 (30)	11.7 (37)	G H I J K L M	111.3
UC 493		11.3 (44)	11.7 (36)	11.5 (41)	J K L M	109.8
FG R97M711	9	10.9 (47)	11.3 (42)	11.1 (47)	M N	105.6
MEAN		12.10	12.03	12.06		
CV		7.5	6.6	6.1		
LSD (0.1)		1.08	0.94	0.88		

Trial seeded at 25 lb/acre viable seed on Hanford fine sandy loam soil at the Univ. of Calif. Kearney Agricultural Center, Parlier, CA. Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD. FD = Fall Dormancy reported by seed companies.

TABLE 9. 2012 YIELDS, WSREC ALFALFA SALINITY TRIAL. TRIAL PLANTED 10/27/09

Note: Single year data should not be used to evaluate alfalfa varieties or choose alfalfa cultivars

		Cut 1	Cut 2	Cut 3	Cut 4	Cut 5	Cut 6	Cut 7	Cut 8	YEAR		% of
		3-Apr	7-May	4-Jun	5-Jul	5-Aug	5-Sep	4-Oct	7-Nov	TOTAL		CUF101
	FD	Dry t/a										%
Released Varieties												
WL 656HQ	9	2.4 (3)	2.2 (3)	2.3 (3)	2.5 (5)	2.8 (3)	1.5 (4)	1.3 (4)	1.4 (1)	16.3 (3)	ABC	109.3
Ameristand 901STQ	9	2.1 (10)	2.0 (12)	2.2 (6)	2.5 (8)	2.7 (6)	1.6 (2)	1.4 (3)	1.2 (8)	15.5 (5)	BCD	104.1
Magna 995	9	2.2 (7)	2.1 (8)	2.1 (8)	2.6 (4)	2.7 (5)	1.4 (8)	1.2 (13)	1.2 (7)	15.5 (6)	BCD	103.7
Hybriforce 800	8	2.0 (15)	2.1 (6)	2.1 (7)	2.5 (7)	2.7 (4)	1.2 (13)	1.2 (8)	1.2 (5)	15.2 (7)	BCDE	102.0
CUF101	9	2.4 (1)	2.1 (9)	2.1 (10)	2.3 (16)	2.5 (9)	1.2 (15)	1.2 (14)	1.1 (11)	14.9 (10)	CDEF	100.0
AmeriStand 803	8	2.0 (18)	2.0 (14)	2.1 (11)	2.5 (6)	2.5 (11)	1.5 (3)	1.3 (7)	1.1 (13)	14.8 (11)	CDEFG	99.4
Integra 8900	9	2.1 (14)	2.0 (11)	2.1 (9)	2.3 (14)	2.5 (13)	1.3 (11)	1.2 (10)	1.2 (6)	14.8 (12)	DEFG	99.0
SW9803	9	2.2 (9)	2.0 (16)	2.0 (16)	2.4 (10)	2.4 (15)	1.4 (9)	1.2 (10)	1.0 (16)	14.6 (13)	DEFGH	97.6
Medina	8.5	2.2 (8)	2.0 (14)	2.0 (14)	2.3 (14)	2.5 (12)	1.3 (12)	1.2 (16)	1.0 (15)	14.5 (14)	DEFGH	97.0
CW 95	9	2.1 (11)	1.9 (18)	1.9 (17)	2.4 (9)	2.4 (14)	1.2 (16)	1.2 (9)	1.1 (9)	14.4 (15)	DEFGH	96.8
CW 485	8	2.0 (17)	2.0 (12)	1.9 (19)	2.3 (17)	2.3 (21)	1.2 (14)	1.1 (18)	1.0 (14)	13.9 (16)	EFGH	93.3
BAR 9242	8.5	1.7 (24)	2.0 (10)	2.0 (14)	2.4 (13)	2.4 (16)	1.1 (23)	1.2 (17)	0.9 (21)	13.8 (18)	EFGH	92.2
UC 452		2.0 (16)	1.9 (17)	1.9 (23)	2.1 (23)	2.4 (16)	1.1 (19)	1.1 (22)	1.0 (17)	13.5 (19)	FGH	90.7
CW 585	8	1.7 (23)	1.8 (23)	1.9 (18)	2.1 (22)	2.3 (20)	1.4 (9)	1.3 (5)	1.0 (19)	13.5 (20)	FGH	90.2
Highline	9	1.9 (20)	1.9 (21)	1.9 (21)	2.1 (20)	2.4 (18)	1.1 (19)	1.1 (19)	1.0 (19)	13.4 (21)	GH	89.7
GrandSlam	8	1.8 (21)	1.9 (22)	1.9 (19)	2.3 (18)	2.1 (24)	1.1 (21)	1.2 (15)	0.9 (23)	13.2 (23)	HI	88.5
CW 8028	8	1.8 (22)	1.7 (24)	1.7 (24)	1.8 (24)	2.1 (23)	0.9 (24)	0.9 (24)	0.9 (24)	11.8 (24)	I	79.0
Experimental Varieties												
FG 96T706	9	2.4 (4)	2.3 (1)	2.5 (1)	2.9 (1)	2.9 (1)	1.6 (1)	1.4 (2)	1.3 (4)	17.1 (1)	A	114.9
FG 96T707	9	2.4 (2)	2.2 (4)	2.3 (2)	2.6 (3)	2.9 (2)	1.4 (5)	1.5 (1)	1.3 (2)	16.5 (2)	AB	110.7
FG 94T02	9	2.3 (6)	2.2 (4)	2.2 (4)	2.4 (11)	2.6 (8)	1.4 (5)	1.3 (6)	1.3 (3)	15.7 (4)	ABCD	105.1
DS593	9	2.4 (5)	2.3 (2)	2.2 (5)	2.4 (12)	2.7 (6)	1.2 (18)	1.1 (21)	1.0 (17)	15.1 (8)	BCDE	101.1
SW9812	9	2.1 (12)	2.1 (7)	2.1 (12)	2.6 (2)	2.5 (10)	1.4 (7)	1.2 (12)	1.1 (12)	15.1 (9)	BCDE	101.1
DS067092	8	1.9 (19)	1.9 (19)	2.0 (13)	2.2 (19)	2.3 (19)	1.2 (17)	1.1 (19)	1.1 (9)	13.8 (17)	EFGH	92.3
DS077661	8	2.1 (13)	1.9 (20)	1.9 (22)	2.1 (21)	2.3 (21)	1.1 (21)	1.1 (23)	0.9 (22)	13.3 (22)	GH	89.4
MEAN		2.10	2.02	2.05	2.35	2.49	1.29	1.21	1.08	14.59		
CV		18.9	11.6	12.2	13.7	13.7	23.5	12.8	19.6	10.5		
LSD (0.1)		0.39	0.23	0.25	0.32	0.34	0.30	0.15	0.21	1.51		

Trial seeded at 25 lb/acre viable seed at WSREC, Five Points, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 10. 2010-12 YIELDS. WSREC ALFALFA SALINITY TRIAL. TRIAL PLANTED 10/27/09

		2010	2011	2012	Average		% of
	FD	Yield	Yield	Yield			CUF 10
			Dry t/a				%
Released Varieties							
WL 656HQ	9	9.7 (12)	13.9 (1)	16.3 (3)	13.3 (2)	A B	106.9
Hybriforce 800	8	10.7 (2)	13.3 (5)	15.2 (7)	13.1 (4)	A B C	105.2
Ameristand 901STQ	9	9.6 (17)	13.4 (4)	15.5 (5)	12.8 (6)	A B C D E	103.1
Magna 995	9	9.7 (13)	12.8 (9)	15.5 (6)	12.7 (7)	A B C D E F	101.8
CUF101	9	10.1 (7)	12.4 (11)	14.9 (10)	12.4 (10)	A B C D E F G H	100.0
Medina	8.5	10.9 (1)	11.7 (19)	14.5 (14)	12.3 (11)	B C D E F G H	99.2
CW 95	9	10.0 (8)	12.0 (15)	14.4 (15)	12.2 (12)	C D E F G H I	97.8
CW 485	8	10.3 (5)	11.9 (16)	13.9 (16)	12.0 (13)	D E F G H I	96.8
UC 452		10.0 (9)	12.5 (10)	13.5 (19)	12.0 (14)	E F G H I	96.5
Highline	9	10.1 (6)	12.3 (12)	13.4 (21)	11.9 (15)	E F G H I	95.7
Integra 8900	9	9.1 (23)	11.8 (18)	14.8 (12)	11.9 (16)	E F G H I	95.5
AmeriStand 803	8	9.2 (22)	11.6 (21)	14.8 (11)	11.9 (17)	E F G H I	95.3
SW9803	9	8.8 (24)	12.1 (13)	14.6 (13)	11.8 (18)	F G H I	95.0
CW 585	8	9.8 (11)	12.1 (14)	13.5 (20)	11.8 (19)	F G H I	94.8
BAR 9242	8.5	9.2 (21)	11.7 (20)	13.8 (18)	11.6 (22)	H I	92.9
GrandSlam	8	9.6 (16)	10.9 (24)	13.2 (23)	11.3 (23)	I	90.4
CW 8028	8	9.9 (10)	11.9 (17)	11.8 (24)	11.2 (24)	I	89.9
Experimental Varieties							
FG 96T706	9	9.4 (20)	13.5 (3)	17.1 (1)	13.3 (1)	A	107.2
FG 94T02	9	10.4 (3)	13.7 (2)	15.7 (4)	13.3 (3)	A B	106.6
FG 96T707	9	9.7 (15)	12.8 (8)	16.5 (2)	13.0 (5)	A B C D	104.6
DS593	9	9.7 (14)	12.9 (7)	15.1 (8)	12.6 (8)	A B C D E F G	100.9
SW9812	9	9.4 (19)	13.1 (6)	15.1 (9)	12.5 (9)	A B C D E F G H	100.7
DS077661	8	10.4 (4)	11.5 (22)	13.3 (22)	11.7 (20)	F G H I	94.2
DS067092	8	9.5 (18)	11.4 (23)	13.8 (17)	11.6 (21)	G H I	93.1
MEAN		9.80	12.38	14.59	12.26		
CV		10.2	11.9	10.5	8.2		
LSD (0.1)		0.99	1.46	1.51	0.99		

Trial seeded at 25 lb/acre viable seed at WSREC, Five Points, CA.

Entries followed by the same letter are not significantly different at the 10% probability level according to Fisher's (protected) LSD.

FD = Fall Dormancy reported by seed companies.

2012 Alfalfa Fall Dormancy Trial Results.

The three-location trial represents Intermountain(Tulelake), Mediterranean (Davis) and Desert (Imperial Valley) environments

Fall Dormancy Class ¹	Multi-year FDR ²	Name	Tulelake ³			Davis ³			Imperial ³			Across locations			2012 FDR ⁵
			Score	NPH ⁴	Rank	Score	NPH ⁴	Rank	Score	NPH ⁴	Rank	Score	NPH ⁴	Rank	
11	11.2	UC-1604	10.77	3.28	55	7.64	2.76	55	10.70	3.27	55	9.70	3.11	55	10.93
		UC-1465	10.21	3.20	53	6.97	2.64	48	10.07	3.17	54	9.08	3.01	54	10.19
		UC-2926	10.54	3.25	54	7.51	2.74	54	9.19	3.03	45	9.08	3.01	53	10.19
10	9.9	UC-Impalo WF	10.10	3.18	50	7.10	2.66	51	9.72	3.12	51	8.97	3.00	52	10.05
		UC-1887	9.66	3.11	44	7.32	2.71	53	9.50	3.08	49	8.83	2.97	50	9.87
		UC-2674	9.86	3.14	46	7.00	2.65	49	9.67	3.11	50	8.84	2.97	51	9.89
		UC-2874	9.55	3.09	43	7.13	2.67	52	9.19	3.03	44	8.62	2.94	49	9.62
		UC-2880	9.29	3.05	41	6.60	2.57	42	9.86	3.14	53	8.58	2.93	48	9.57
		SW 9813	9.21	3.04	40	6.81	2.61	45	9.06	3.01	42	8.36	2.89	47	9.28
		UC-2873	8.97	2.99	34	6.85	2.62	46	9.16	3.03	43	8.33	2.89	46	9.24
		UC-2871	8.46	2.91	26	7.09	2.66	50	9.28	3.05	46	8.28	2.88	44	9.18
		CW 89126	10.11	3.18	51	6.55	2.56	41	8.28	2.88	33	8.32	2.88	45	9.23
		UC-2879	8.80	2.967	31	6.31	2.5113	39	9.33	3.05	47	8.15	2.85	41	9.01
		Tres Padre	9.19	3.03	39	5.91	2.43	34	9.33	3.06	48	8.15	2.85	40	9.01
		CA-V11041	10.00	3.16	49	6.41	2.53	40	8.20	2.86	30	8.21	2.86	42	9.08
		Un Padre	9.96	3.16	48	5.05	2.25	24	9.75	3.12	52	8.25	2.87	43	9.14
		UC-2877	9.70	3.11	45	6.17	2.48	36	8.56	2.93	36	8.14	2.85	39	9.00
		9	8.9	CUF101	8.71	2.95	30	6.63	2.57	44	8.67	2.94	38	8.00	2.83
8	7.8	Pierce	9.18	3.03	37	6.61	2.57	43	8.28	2.88	32	8.02	2.83	37	8.85
		CA-V11030	10.21	3.20	52	5.56	2.36	32	8.51	2.92	35	8.09	2.84	38	8.94
		Magna 995	9.96	3.16	47	6.24	2.50	38	7.77	2.79	23	7.99	2.83	35	8.80
		59N59 C97MA946	7.44	2.73	17	6.86	2.62	47	8.72	2.95	40	7.68	2.77	33	8.39
		CA-V10628	9.07	3.01	36	6.11	2.47	35	8.19	2.86	29	7.79	2.79	34	8.54
		HybriForce 800	9.06	3.01	35	4.88	2.21	21	8.70	2.95	39	7.55	2.75	32	8.22
		59N59 C97MA941	8.90	2.98	33	5.63	2.37	33	7.93	2.82	24	7.49	2.74	31	8.14
		10589	8.38	2.90	24	5.06	2.25	27	8.65	2.94	37	7.36	2.71	28	7.97
		CW 09084	8.82	2.97	32	5.05	2.25	24	8.21	2.87	31	7.36	2.71	27	7.96
		WL 530 HQ	9.19	3.03	38	6.22	2.49	37	6.75	2.60	14	7.39	2.72	29	8.00
		Integra 8800	9.45	3.07	42	5.30	2.30	30	7.44	2.73	20	7.40	2.72	30	8.02
		FG 83T048	8.55	2.92	27	5.19	2.28	28	8.07	2.84	26	7.27	2.70	26	7.84
		CW 78118	7.75	2.78	20	5.25	2.29	29	8.43	2.90	34	7.14	2.67	25	7.67
		DS 067348	8.46	2.91	25	4.75	2.18	20	8.00	2.83	25	7.07	2.66	24	7.56
7	6.7	Dona Ana	8.19	2.86	21	4.73	2.17	18	8.16	2.86	28	7.03	2.65	23	7.50
		Sutter	7.65	2.77	19	4.20	2.05	14	9.04	3.01	41	6.96	2.64	22	7.41
		DS 067092	7.59	2.75	18	5.52	2.35	31	7.19	2.68	18	6.77	2.60	19	7.14
		Magna 788	8.66	2.94	29	4.74	2.18	19	7.25	2.69	19	6.88	2.62	21	7.30
		DS 077601	8.34	2.89	23	4.37	2.09	16	7.69	2.77	22	6.80	2.61	20	7.19
		Integra 8600	6.81	2.61	11	4.93	2.22	23	8.13	2.85	27	6.62	2.57	18	6.93
		HybriForce 700	7.01	2.65	14	4.64	2.15	17	7.55	2.75	21	6.40	2.53	16	6.61
		Magna 801 FQ	8.21	2.87	22	3.97	1.99	12	7.04	2.65	17	6.41	2.53	17	6.62
		WL 440HQ	6.93	2.63	12	4.89	2.21	22	6.28	2.51	8	6.03	2.46	15	6.06
		DS 071842	5.93	2.44	7	5.05	2.25	26	6.54	2.56	12	5.84	2.42	11	5.77
6	6.3	ABI 700	6.61	2.57	10	4.36	2.09	15	6.74	2.60	13	5.90	2.43	13	5.87
		HybriForce 620	7.01	2.65	15	3.67	1.92	9	6.93	2.63	15	5.87	2.42	12	5.82
		UC-2938	6.14	2.48	8	4.12	2.03	13	6.97	2.64	16	5.75	2.40	10	5.63
		DKA 50-18	8.59	2.93	28	2.95	1.72	4	6.29	2.51	9	5.94	2.44	14	5.93
5	5.3	Archer	6.97	2.64	13	3.76	1.94	10	6.35	2.52	10	5.69	2.39	9	5.55
		Cisco	6.19	2.49	9	2.36	1.54	3	6.38	2.53	11	4.98	2.23	8	4.40
		NY1120	7.09	2.66	16	3.28	1.81	6	4.24	2.06	3	4.87	2.21	7	4.22
4	3.8	Legend	4.84	2.20	5	3.44	1.85	7	5.24	2.29	4	4.51	2.12	5	3.60
		NY1123	4.65	2.16	4	2.99	1.73	5	5.59	2.36	6	4.41	2.10	4	3.43
3	3.4	5246	4.88	2.21	6	3.44	1.85	7	5.70	2.39	7	4.67	2.16	6	3.89 ⁷
		NY0929/30	4.20	2.05	3	3.78	1.94	11	2.94	1.72	1	3.64	1.91	3	2.01
2	2.0	Vernal	3.07	1.75	2	2.10	1.45	2	5.33	2.31	5	3.50	1.87	2	1.74
1	0.8	Maverick	2.67	1.63	1	2.05	1.43	1	3.54	1.88	2	2.75	1.66	1	0.17

LSD _{0.05} ⁶	0.08	0.10	0.05
CV(%)	12.78	14.80	11.32

¹Number corresponds to Fall Dormancy Class of 12 Check cultivars (in Bold Print) used by the Certified Alfalfa Seed Council

²Actual 4-year Fall Dormancy Rating of check cultivars using the Univ. of California regression equation (NAAIC, August 1998).

³Location: Planted-cut-scored: Tulelake 5/8-9/7-10/1; Davis 5/8-10/7-10/30; Imperial 4/12-10/23-11/16/2012

⁴Plant Height Score is transformed into Natural Plant Height (NPH) using square root to remove heterogeneity of variance

⁵Suggested single year fall dormancy rating based on three location single year regression (FDR=4.072(NPH)-3.404)

⁶Fishers protected Least Significant Difference for comparison of NPH means within location

SUGGESTED FALL DORMANCY RANGE AND MINIMUM ALFALFA CULTIVAR PEST RESISTANCE RATINGS FOR SIX CALIFORNIA CLIMATE ZONES. Growers selecting varieties from different regions should emphasize the pests that are most important for their area.

Production Zone	Rating Factor										
	FD	SAA	PA	BAA	PRR	BW	FW	An	Stn	RKN	VW
Intermountain	2--4	S	R	MR	R	R	HR	R	R	R	R
Sacramento Valley	4--8	MR	HR	HR	HR	MR	HR	R	R	R	R
San Joaquin Valley	7--9	R	HR	HR	HR	MR	HR	R	HR	HR	R
Coastal	5--7	MR	HR	HR	HR	MR	HR	R	HR	HR	R
High Desert	4--7	R	R	R	R	MR	HR	MR	HR	HR	R
Low Desert	8--9	HR	HR	HR	HR	S	HR	HR	R	HR	S

NOTE: These pest resistance recommendations were originally developed by Dr. Vern Marble, Extension Agronomist, UC Davis, based upon decades of experience with alfalfa varieties in various locations in California. Zones correspond to the principle regions of alfalfa production in California.

EXPLANATION OF PEST RESISTANCE. Alfalfa varieties consist of a population of plants which have varying degrees of resistance to an insect or disease. Since alfalfa fields can sustain considerable loss of individual plants without reducing productivity, alfalfa varieties with 51% or over are considered to be highly resistant, since resistant plants will make up for losses from other plants.

Resistance Level	Abbreviation	Percent resistance ¹
Highly Resistant	HR	>51%
Resistant	R	31-50%
Moderately Resistant	MR	15-30%
Low Resistance	LOW	6-14%
Susceptible	S	<5%
Tolerant	T	(see definition)

¹ Percent of plants in a population resistant to a given pest

Definitions

I - Immune -- Not subject to attack for a specified pest. Immunity is absolute, and seldom occurs in alfalfa.

R - Resistant -- The ability of plants to withstand pest attack. Resistance is not absolute but varies by degree. Even highly resistant varieties will have some plants that are susceptible (see above percentages). NOTE: Very high insect populations or very severe disease conditions can overwhelm pest resistance in alfalfa.

S - Susceptible -- Damage commonly occurs when in the presence of a specified pest. Inability of a variety to withstand adverse disease or insect conditions.

T - Tolerant -- Ability of plants to sustain yields when confronted with a pest attack or environmental condition (e.g. salt or grazing). Tolerant varieties are affected by the condition, but still maintain yields at high levels relative to less tolerant varieties.

LISTING OF COMPANY CONTACTS FOR FURTHER INFORMATION ON VARIETIES.

Company	Name	Address	City & State	Zip	Phone	FAX	Email
Advanced Forages	Mark Brady	3330 W. Victor Ct.	Visalia, CA	93277	559-471-9363	559-625-8756	seedsmn4u@sbcglobal.net
Allied Seed	Ron Schmidt	1917 E. Fargo Ave.	Nampa, ID	83687	208-466-9218	208-467-9953	rschmidt@allied.com
America's Alfalfa	Joe Machado	1041 Jackson Ave.	Los Banos, CA	93635	209-826-9442	209-826-8842	machado@americasalfalfa.com
Cal/West Seeds	Jon Reich	38001 Country Road 27	Woodland, CA	95695	530-666-3331	530-666-1464	j.reich@Calwestseeds.com
Croplan Genetics	Dennis Gehler	1080 County Road F West	St. Paul, MN	98425	651-765-5710	651-765-5727	djgehler@landolakes.com
Dairyland Seed Co.	Dan Gardner	13147 Jackson Hwy.	Sloughouse, CA	95683	916-682-3215	916-682-8435	dgardner@dairylandseed.com
Desert Sun Marketing Co.	Mike Malin	P. O. Box 50817	Phoenix, AZ	85076	480-940-4431	480-940-4507	mike@desertsunmarketing.com
Eureka/SeedTec	Craig Sharp	P.O. Box 1866	Woodland, CA	95776	530-661-6995	530-661-1575	csharp@eurekaseeds.com
Farm Valley Seeds	Mike Reed/James Scallin	624 E Service Rd	Modesto, CA	95358	209-541-3144	209-541-3191	jscallin@aol.com /
Forage Genetics Intrnl.	Peter Reisen	P.O. Box 339	Nampa, ID	83653	208-250-6334	208-466-3684	preisen@foragegenetics.com
W-L Research	Doug Elkins	1917 E. Fargo Ave.	Nampa, ID	83687	208-250-7551	208-467-9953	delkins@foragegenetics.com
W-L Research	Cory Ritz	903 W. 500 South	Farmington, UT	84025	801-971-5359	801-451-9699	critz@wresearch.com
Great Plains Research	Thad Busbice	3624 Kildaire Farm Rd	Cary NC.	27518	919-362-1583	919-387-7918	alfalfa@greatplainsresearch.com
Kamprath Seed Co.	Alan Steigerwald	205 Stockton St.	Manteca, CA	95337	209-823-6242	209-823-2582	alan@kamprathseed.com
Lockhart Seeds, Inc.	Ian Lockhart	3 N. Wilson Way	Stockton, CA	95201	209-466-4401	209-466-9766	lockhartstd@aol.com
Monsanto Golbal Seed Group	Bill Cox	2401 S.E. Cottonwood Cir	Visalia, CA	93277	559-909-0668	559-627-0742	bill.cox@monsanto.com
Monsanto Golbal Seed Group	Barbara Kutzner	1428 N. Locan Ave	Fresno, CA	93727	559-453-0740	559-453-0771	barbara.u.kutzner@monsanto.com
Novartis Seeds Inc.	Don Barcellos	11939A Sugarmill Rd.	Longmont,CO	80501	800-521-7021	303-682-2482	don.barcellos@seeds.novartis.com
Pgi Alfalfa Inc.	Dean Teslow	409 North St.	Decorah, IA	52101	563-382-3390	563-382-2433	dean.teslow@seminis.com
Pioneer Hi-Bred	Mark Smith	1040 Settler Rd.	Connell, WA	99326	509-234-9046	509-234-0648	mark.a.smith@pioneer.com
Pioneer Hi-Bred	Roger Vinande	3605 Beyer Park Rd.	Modesto, CA	95355	(209) 552-9428	209-527-3336	Roger.Vinande@pioneer.com
Producer's Choice/PGI	Marty Crum	17282 Avenue 324	Visalia, CA	93292	559-798-0156	559-798-6533	m.crum@producerschoiceseed.com
Royal Seeds	Ken May	27630 Llewellyn Rd.	Corvallis, OR	97333	1-800-228-4119	1-541-758-5305	kmay@forage-genetics.com
S & W Seeds	Bob Sheesley	P.O. Box 235	Five Points, CA	93624	559-884-2535	559-884-2750	swseedco@pacbell.net
Simplot Growers Solutions	Mike Benson	624 Catalina Cir.	Tulare, CA	93274	559-779-5611		Mbenson@Simplot.com
Simplot Growers Solutions	Lorell Skogsberg	P.O. Box 70013	Boise, ID	83707	208-672-2813		Lorell.Skogsberg@simplot.com
Syngenta Seeds	Terry Hobson	1525 Airport Rd.	Ames, IA	50010	800-258-0498	515-239-3536	terry.hobson@syngenta.com
NK Brand/Syngenta Seeds	Joe Waldo	1116 Elm Avenue West	Menomonie, WI	54751	(715) 235-4405	715-235-4406	joe.waldo@syngenta.com
Producers Choice Seed	Don Miller	Longbranch Station, Suite	Nampa, ID	83651	208-250-0376	208-722-6646	d.miller@producerschoiceseed.com
Union Seed	Jess W. Bice	P.O. Box 339	Nampa, ID	86387	208-250-2383	208-467-9953	jbice@foragegenetics.com
WL Research	Mike Peterson	P. O. Box 8112	Madison, WI	53708	800-406-7662	608-240-0411	mpeterson@wresearch.com
Western Farm Service	Steve Ford	P.O. Box 1168	Fresno, CA	93715	559-285-6292	559-436-5949	sford@agriumretail.com
Wilbur Ellis Company	Derek Winn	P. O. Box 15289	Sacramento, CA	95851	916-991-9833	916-991-1837	dwinn@wilburellis.com
UAP/United Agri Products	Walter Bryant	4914 HWY 20/26	Caldwell, ID	83605	208-454-0475	208-454-0495	walter.bryant@uap.com