

AGRONOMY PROGRESS REPORT

**2011 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 2011. Both conventional and Roundup-Ready (RR) lines have been tested. Yield trials were conducted in 6 regions in California: the Intermountain area (2 locations), the Sacramento Valley (1 location), the San Joaquin Valley (2 locations), the High Desert (1 location) and the Low Desert (1 location). 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**, and 7-8 cut systems (semi-dormant to non-dormant varieties) in the **Southern Central**

California Alfalfa Acreages by Section

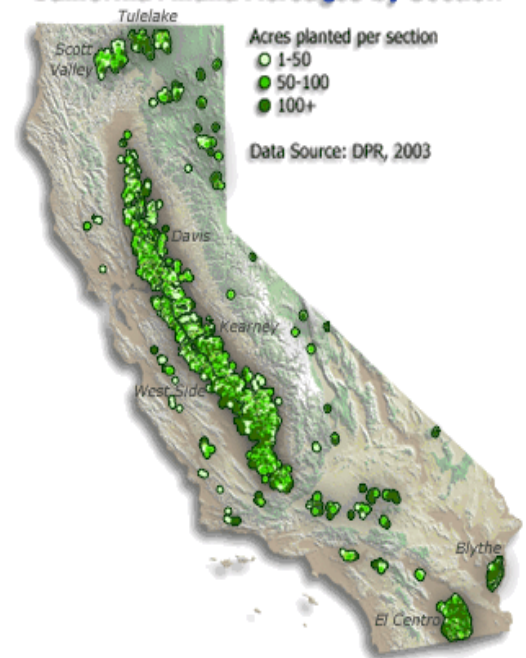


Figure 1. California alfalfa acreage. The Intermountain region is represented by Tulelake and Scott Valley, Sacramento Valley by Davis, San Joaquin Valley by Kearney and West Side Locations, high desert by the Lancaster trial, and Low Desert by the El Centro trial.

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Valley and 8-11 cut systems (non-dormant varieties) in the **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 form alfalfa trials harvested in California in 2011.

2011 ALFALFA PRODUCTION YEAR

The 2011 production season was generally characterized by a much more moderate winter season followed by a mild spring and summer season. California was slowly coming out of a 3-year drought, with water limitations in some regions due to low water supplies for irrigation. The remainder of the season (August-September) was much milder than typical. Winter rainfall was high and allowed the reservoirs to fill up but precipitation in the spring months prevented us from cutting at a timely basis. This was followed by seasonably cooler temperatures in the summer months. The moderate and dry fall months allowed for excellent late production (high yields and high quality) for many growers in the San Joaquin Valley. Intermountain areas had fairly dry spring conditions.

Record prices occurred in 2011 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 of 2009. However, with less availability, the price of alfalfa has risen in the fall and winter 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, West Side Field Station, Lancaster, and El Centro, CA in 2011.

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. 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 with to soil and irrigation issues which has caused poor yields. In the 2012 year we are installing drip irrigation and will be establishing a new Imperial Valley variety trial. It will be planted in February of 2012. Specific planting dates for each trial are given on the results table for that trial. The 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 six 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.

2011 YIELD RESULTS

Intermountain Region

2007 UC Tulelake Yield Trial – The 2011 season was relatively normal in rainfall and temperature. Four cuttings were conducted during the season with the first cutting taking place on June 27, 2011. 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 2.5 tons/acre, while the Fall Dormancy (FD) ranges were from 3-8.5. The average yield across all varieties was 8.7 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 four years were almost 7.84 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 2011 harvests are provided in Table 3. Yield differences from highest to lowest yielding variety were approximately 1.4 tons/acre. The average yield across all varieties was 8.0 tons/acre. The CVs were relatively low; indicating control of varieties was stable over each cut in this trial.

Sacramento Valley

2008 UC Davis Yield Trial– This is the third year of harvests for the UC Davis Yield Trial. Six cuttings were conducted during the season with the first cutting on April 26, 2011. Single year results from the six harvests are provided in Table 4 and the over-the-years data provided in Table 5. The yield across all varieties was about 9.7 tons/acre. The yearly yield average between high and low varieties was 4.2 tons/acre difference. Yields averaged over the three years were increase to 10.2 tons/acre (Table 5). The yearly yield average between high and low varieties was over 3.1 tons/acre difference averaged over the three years. CVs were low, indicating the control of variation in this trial.

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. Four harvests were conducted during 2010 season. This is the second season of this yield trial and the data is provided in Table 7 & 8. Seven cuttings were conducted during the season with the first cutting taking place on April 19, 2011. The yearly yield average between high and low varieties was 3.0 tons/acre with CV's remaining moderate, especially in the summer months. The average yield across all varieties was 12.4 tons/acre. Yields averaged over the two years were over 11 tons/acre (Table 8). 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. Seven cuttings were conducted during the 2011 season with the first cutting taking place on April 14, 2011. Single year results from the 2011 harvests are provided in Table 6. The average yield across all varieties was 12.1 tons/acre. The yearly yield averages between high and low varieties were about 2.7 tons/acre difference, and CVs were moderate, indicating average control of variation in this trial. The fall dormancy ranges were from 6-10.

High Desert

2009 Lancaster Yield Trial – A new variety trial was established in Lancaster with 27 entries on September 15, 2009 in a grower's field. The first production year will began in the spring of 2010. This is the second season of this yield trial and the data is provided in Table 9 & 10. Six cuttings were conducted during the season with the first cutting taking place on May 19, 2011. The yearly yield average between high and low varieties were 2.5 tons/acre with CV's remaining moderate, indicating average control of variation in this trial. The average yield across all varieties was about 10.2 tons/acre. Yields averaged over the two years were over 9.4 tons/acre (Table 10). The yearly yield average between high and low varieties was nearly 2.2 tons/acre difference averaged over the two years

Low Desert

2008 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 are installing a drip irrigation system to help alleviate the previous problems with this trial.

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.**

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TABLE 1. 2011 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	27-Jun	27-Jul	8-Sep	15-Oct	TOTAL		VERNAL
				Dry t/a				%
Released Varieties								
Archer III	5	3.9 (2)	2.6 (2)	2.2 (8)	1.0 (13)	9.8 (1)	A	134.2
MilkMaker ML	5	3.5 (28)	2.3 (25)	2.3 (2)	1.3 (1)	9.4 (4)	A B C D	128.4
GrandStand	4	3.9 (3)	2.5 (6)	2.0 (37)	0.9 (27)	9.3 (5)	A B C D	128.2
AmeriStand407TQ	4	3.7 (10)	2.4 (12)	2.2 (11)	1.0 (14)	9.3 (8)	A B C D E F	127.6
PGI 459	4	3.8 (9)	2.2 (28)	2.4 (1)	0.9 (22)	9.3 (9)	A B C D E F	127.4
DKA50-18	5	3.6 (21)	2.6 (5)	2.1 (17)	0.9 (20)	9.3 (10)	A B C D E F G	127.0
AmeriStand444NT	4	3.8 (6)	2.3 (27)	2.1 (15)	1.0 (16)	9.2 (11)	A B C D E F G H	126.4
WL 357HQ	5	3.7 (12)	2.5 (7)	2.0 (41)	1.0 (18)	9.2 (12)	A B C D E F G H	126.2
Legendairy	3	3.7 (14)	2.4 (11)	2.1 (24)	0.9 (24)	9.1 (13)	A B C D E F G H I	125.1
Integra 8300	3	3.7 (16)	2.3 (26)	2.2 (4)	0.9 (29)	9.1 (14)	A B C D E F G H I	125.1
CW 500	5	3.4 (39)	2.6 (4)	2.1 (18)	1.0 (11)	9.1 (15)	A B C D E F G H I	124.8
Genoa	4	3.4 (32)	2.6 (1)	2.1 (21)	0.9 (21)	9.1 (16)	A B C D E F G H I	124.7
PGI 424	4	3.6 (23)	2.4 (14)	2.1 (34)	0.9 (31)	8.9 (20)	B C D E F G H I J K L	122.4
FSG 528SF	5	3.9 (4)	2.1 (45)	2.0 (39)	0.9 (26)	8.9 (21)	B C D E F G H I J K L	122.3
Integra 8400	4	3.4 (38)	2.5 (9)	2.2 (10)	0.9 (30)	8.9 (22)	B C D E F G H I J K L M	122.3
Whitney	4	3.6 (22)	2.4 (15)	2.0 (47)	0.8 (45)	8.8 (26)	B C D E F G H I J K L M N O	120.3
FSG 505	5	3.4 (35)	2.3 (19)	2.0 (36)	0.9 (32)	8.7 (29)	B C D E F G H I J K L M N O P	118.9
Magnum VI	4	3.7 (19)	2.2 (31)	2.0 (38)	0.7 (49)	8.7 (30)	B C D E F G H I J K L M N O P	118.9
Xtra-3	4	3.6 (20)	2.1 (46)	2.1 (28)	0.8 (39)	8.6 (31)	C D E F G H I J K L M N O P	118.6
Rebound 5	4	3.7 (18)	2.2 (38)	2.0 (42)	0.7 (51)	8.6 (33)	C D E F G H I J K L M N O P	118.0
WL 343HQ	4	3.5 (31)	2.3 (18)	2.0 (46)	0.8 (37)	8.6 (34)	C D E F G H I J K L M N O P	117.9
Mountaineer 2	5	3.2 (47)	1.9 (55)	2.2 (5)	0.9 (25)	8.3 (44)	I J K L M N O P	114.2
54V09	4	3.3 (41)	2.2 (35)	2.0 (44)	0.7 (53)	8.2 (45)	J K L M N O P	113.2
Prosementi	ND	2.9 (53)	2.1 (44)	2.1 (30)	1.2 (3)	8.2 (48)	K L M N O P	112.7
Dura 512	5	3.1 (51)	2.2 (33)	2.1 (22)	0.8 (46)	8.2 (49)	L M N O P	112.1
Everlast II	4	3.4 (34)	2.0 (50)	1.9 (53)	0.8 (48)	8.2 (50)	L M N O P	112.1
WL 325 HQ	4	3.4 (37)	2.1 (42)	1.8 (55)	0.7 (50)	8.1 (52)	N O P	111.1
FSG 408DP	4	3.2 (48)	2.0 (54)	2.1 (27)	0.7 (54)	8.0 (53)	O P Q	109.4
MasterPiece	4	3.1 (50)	2.1 (49)	1.9 (54)	0.9 (28)	7.9 (55)	P Q	108.6
Vernal	2	3.3 (42)	1.9 (56)	1.7 (56)	0.3 (56)	7.3 (56)	Q	100.0
Experimental Varieties								
R56Bx214	4	3.6 (25)	2.6 (3)	2.3 (3)	1.0 (10)	9.5 (2)	A B	129.8
R46Bx164	6	3.8 (8)	2.4 (16)	2.1 (12)	1.1 (9)	9.4 (3)	A B C	128.9
R46Bx218	6	4.1 (1)	2.3 (20)	2.0 (48)	0.9 (19)	9.3 (6)	A B C D E	127.9
R46Bx211	4.1	3.7 (13)	2.2 (34)	2.2 (6)	1.1 (5)	9.3 (7)	A B C D E F	127.7
R56BD191	ND	3.8 (5)	2.3 (21)	2.1 (20)	0.8 (44)	9.1 (17)	A B C D E F G H I	124.2
R46Bx160	5	3.7 (17)	2.4 (13)	2.1 (19)	0.8 (41)	9.0 (18)	A B C D E F G H I J	124.1
R46Bx165	8.5	3.7 (15)	2.3 (24)	2.1 (25)	0.9 (23)	9.0 (19)	A B C D E F G H I J K	123.3
R56BD190	ND	3.7 (11)	2.2 (39)	2.0 (50)	1.0 (12)	8.9 (23)	B C D E F G H I J K L M	122.2
R46Bx197	8	3.5 (30)	2.5 (8)	2.1 (26)	0.9 (34)	8.9 (24)	B C D E F G H I J K L M N	122.0
R46Bx163	4	3.6 (24)	2.3 (23)	2.1 (32)	0.9 (35)	8.8 (25)	B C D E F G H I J K L M N	120.7
R46Bx778	ND	3.8 (7)	2.0 (52)	2.1 (23)	0.8 (42)	8.7 (27)	B C D E F G H I J K L M N O	120.1
R56BD202	ND	3.5 (27)	2.2 (36)	2.1 (33)	1.0 (17)	8.7 (28)	B C D E F G H I J K L M N O	120.0
R46BD203	ND	2.9 (52)	2.4 (17)	2.2 (7)	1.1 (7)	8.6 (32)	C D E F G H I J K L M N O P	118.3
R56Bx212	6	3.3 (45)	2.2 (41)	2.0 (40)	1.1 (6)	8.6 (35)	D E F G H I J K L M N O P	117.6
R56BD188	ND	3.5 (29)	2.2 (29)	2.0 (45)	0.8 (40)	8.5 (36)	E F G H I J K L M N O P	117.0
R46Bx167	4	3.4 (33)	2.2 (40)	1.9 (52)	1.0 (15)	8.5 (37)	E F G H I J K L M N O P	116.9
R46BD201	ND	2.9 (55)	2.5 (10)	2.1 (16)	1.1 (8)	8.5 (38)	F G H I J K L M N O P	116.7
R46Bx173	5	3.3 (40)	2.1 (43)	2.2 (9)	0.8 (43)	8.5 (39)	G H I J K L M N O P	116.1
R46Bx162	8	3.2 (46)	2.2 (32)	2.1 (14)	0.9 (36)	8.4 (40)	H I J K L M N O P	115.9
R46Bx161	6	3.3 (44)	2.3 (22)	2.0 (49)	0.9 (33)	8.4 (41)	I J K L M N O P	115.1
R46Bx777	ND	3.4 (36)	2.1 (48)	2.0 (35)	0.8 (38)	8.4 (42)	I J K L M N O P	114.6
R46Bx217	8	2.9 (54)	2.2 (37)	2.1 (13)	1.1 (4)	8.3 (43)	I J K L M N O P	114.5
R46Bx776	ND	3.5 (26)	2.0 (51)	2.0 (51)	0.7 (55)	8.2 (46)	K L M N O P	112.9
TS 4028	4	3.3 (43)	2.1 (47)	2.1 (29)	0.8 (47)	8.2 (47)	K L M N O P	112.8
R46Bx775	ND	3.1 (49)	2.2 (30)	2.0 (43)	0.7 (52)	8.1 (51)	M N O P	111.2
R66BD108	ND	2.7 (56)	2.0 (53)	2.1 (31)	1.2 (2)	7.9 (54)	P Q	108.7
MEAN		3.48	2.26	2.08	0.90	8.71		
CV		19.8	12.3	10.9	11.6	8.7		
LSD (0.1)		NS	0.29	NS	0.11	0.81		

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. 2008-2011 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 07/27/07

		2008	2009	2010	2011	Average		% of
	FD	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)	8.5 (1)	A	131.0
PGI 459	4	8.5 (2)	8.3 (4)	7.8 (1)	9.3 (9)	8.5 (2)	AB	129.6
DKA50-18	5	8.3 (11)	8.5 (1)	7.6 (2)	9.3 (10)	8.4 (3)	ABC	129.0
WL 357HQ	5	8.3 (12)	8.1 (6)	7.2 (8)	9.2 (12)	8.2 (4)	BCD	125.8
GrandStand	4	8.2 (20)	8.0 (10)	7.3 (6)	9.3 (5)	8.2 (5)	BCDE	125.7
Integra 8400	4	8.0 (34)	8.3 (3)	7.5 (4)	8.9 (22)	8.2 (6)	BCDEF	125.3
Integra 8300	3	8.3 (15)	8.1 (7)	7.2 (9)	9.1 (14)	8.2 (7)	BCDEF	125.2
AmeriStand407TQ	4	8.1 (30)	8.0 (9)	7.2 (12)	9.3 (8)	8.2 (8)	BCDEFG	125.1
AmeriStand444NT	4	8.4 (4)	7.7 (31)	7.2 (14)	9.2 (11)	8.1 (9)	BCDEFGH	124.7
Genoa	4	8.4 (6)	7.7 (27)	7.3 (5)	9.1 (16)	8.1 (11)	BCDEFGH	124.6
Legendairy	3	8.0 (33)	8.1 (5)	7.2 (11)	9.1 (13)	8.1 (13)	CDEFGHI	124.4
MilkMaker ML	5	8.4 (3)	7.6 (37)	6.9 (31)	9.4 (4)	8.1 (15)	CDEFGHIJ	123.8
PGI 424	4	8.3 (10)	7.9 (13)	7.0 (24)	8.9 (20)	8.0 (17)	DEFGHIJK	123.0
CW 500	5	8.2 (18)	7.9 (14)	6.8 (38)	9.1 (15)	8.0 (20)	DEFGHIJKL	122.8
FSG 528SF	5	8.4 (7)	7.7 (26)	6.9 (35)	8.9 (21)	8.0 (21)	DEFGHIJKLM	122.3
Rebound 5	4	7.9 (38)	8.0 (8)	7.2 (13)	8.6 (33)	7.9 (24)	DEFGHIJKLMNO	121.7
FSG 505	5	7.8 (46)	7.7 (25)	7.2 (7)	8.7 (29)	7.9 (28)	EFGHIJKLMNOPQ	120.5
Xtra-3	4	8.4 (5)	7.5 (45)	6.8 (41)	8.6 (31)	7.8 (31)	GHIJKLMNOPQR	120.0
Magnum VI	4	7.8 (47)	7.8 (18)	6.8 (44)	8.7 (30)	7.8 (36)	JKLMNOPQRSTU	118.9
WL 343HQ	4	7.6 (52)	7.7 (34)	6.9 (29)	8.6 (34)	7.7 (38)	KLMNOPQRSTU	118.3
Dura 512	5	8.1 (24)	7.8 (21)	6.6 (48)	8.2 (49)	7.7 (40)	LMNOPQRSTU	117.7
54V09	4	8.1 (29)	7.6 (39)	6.7 (46)	8.2 (45)	7.6 (43)	MNOPQRSTU	117.3
WL 325 HQ	4	7.8 (48)	7.7 (32)	6.8 (42)	8.1 (52)	7.6 (47)	PQRSTU	116.4
Mountaineer 2	5	7.9 (39)	7.3 (50)	6.6 (51)	8.3 (44)	7.5 (49)	QRSTU	115.6
Everlast II	4	7.7 (51)	7.5 (43)	6.8 (43)	8.2 (50)	7.5 (50)	QRSTU	115.5
MasterPiece	4	8.0 (37)	7.4 (49)	6.7 (45)	7.9 (55)	7.5 (51)	RSTU	115.0
Whitney	4	7.9 (41)	6.9 (54)	6.3 (53)	8.8 (26)	7.5 (52)	STU	114.5
Prosementi	ND	8.1 (28)	7.2 (53)	6.3 (54)	8.2 (48)	7.4 (53)	TU	114.0
FSG 408DP	4	7.6 (53)	7.3 (52)	6.8 (40)	8.0 (53)	7.4 (54)	U	113.7
Vernal	2	6.7 (56)	6.5 (56)	5.6 (56)	7.3 (56)	6.5 (56)		100.0
Experimental Varieties								
R46Bx164	6	8.1 (26)	8.0 (11)	7.0 (23)	9.4 (3)	8.1 (10)	BCDEFGH	124.6
R56Bx214	4	8.3 (9)	7.6 (38)	7.1 (19)	9.5 (2)	8.1 (12)	CDEFGH	124.4
R56BD191	ND	8.3 (13)	7.8 (16)	7.1 (17)	9.1 (17)	8.1 (14)	CDEFGHIJ	123.8
R46Bx197	8	8.3 (8)	7.8 (17)	7.2 (16)	8.9 (24)	8.1 (16)	DEFGHIJK	123.5
R46Bx218	6	8.1 (31)	7.8 (15)	6.8 (39)	9.3 (6)	8.0 (18)	DEFGHIJK	123.0
R56BD190	ND	8.2 (19)	7.8 (24)	7.2 (15)	8.9 (23)	8.0 (19)	DEFGHIJKL	122.8
R56BD188	ND	8.2 (22)	8.0 (12)	7.2 (10)	8.5 (36)	8.0 (22)	DEFGHIJKLM	122.3
R46Bx160	5	7.9 (40)	7.8 (22)	7.1 (20)	9.0 (18)	8.0 (23)	DEFGHIJKLMN	122.0
R46Bx165	8.5	8.0 (36)	7.8 (20)	6.9 (32)	9.0 (19)	7.9 (25)	DEFGHIJKLMNOP	121.4
R46BD201	ND	8.2 (17)	7.8 (19)	7.0 (22)	8.5 (38)	7.9 (26)	DEFGHIJKLMNOP	121.1
R46Bx211	4.1	7.9 (44)	7.3 (51)	7.0 (25)	9.3 (7)	7.9 (27)	DEFGHIJKLMNOPQ	120.6
R46Bx167	4	8.2 (23)	7.7 (29)	7.0 (27)	8.5 (37)	7.8 (29)	FGHIJKLMNOPQ	120.3
R46Bx162	8	8.2 (16)	7.7 (28)	7.0 (28)	8.4 (40)	7.8 (30)	FGHIJKLMNOPQ	120.3
R46Bx777	ND	8.1 (32)	7.8 (23)	7.1 (18)	8.4 (42)	7.8 (32)	GHIJKLMNOPQR	119.9
R46Bx163	4	8.1 (25)	7.4 (48)	6.9 (30)	8.8 (25)	7.8 (33)	GHIJKLMNOPQR	119.9
R46BD203	ND	8.3 (14)	7.4 (47)	6.9 (33)	8.6 (32)	7.8 (34)	HJKLMNOPQRS	119.6
R46Bx778	ND	8.2 (21)	7.5 (41)	6.6 (50)	8.7 (27)	7.8 (35)	IJKLMNOPQRST	119.2
R46Bx775	ND	8.1 (27)	7.7 (30)	7.0 (21)	8.1 (51)	7.7 (37)	JKLMNOPQRSTU	118.8
R56Bx212	6	7.9 (42)	7.5 (42)	6.8 (37)	8.6 (35)	7.7 (39)	KLMNOPQRSTU	118.3
R56BD202	ND	7.8 (45)	7.6 (35)	6.5 (52)	8.7 (28)	7.7 (41)	LMNOPQRSTU	117.7
TS 4028	4	7.9 (43)	7.5 (40)	7.0 (26)	8.2 (47)	7.7 (42)	MNOPQRSTU	117.4
R46Bx173	5	7.7 (50)	7.5 (44)	6.9 (36)	8.5 (39)	7.6 (44)	NOPQRSTU	117.1
R46Bx161	6	7.5 (55)	7.7 (33)	6.9 (34)	8.4 (41)	7.6 (45)	NOPQRSTU	117.0
R46Bx217	8	8.0 (35)	7.4 (46)	6.6 (47)	8.3 (43)	7.6 (46)	OPQRSTU	116.6
R46Bx776	ND	7.7 (49)	7.6 (36)	6.6 (49)	8.2 (46)	7.5 (48)	QRSTU	115.8
R66BD108	ND	7.6 (54)	6.8 (55)	5.9 (55)	7.9 (54)	7.0 (55)	V	108.1
MEAN		8.05	7.69	6.93	8.71	7.84		
CV		5.8	4.5	4.5	8.7	4.1		
LSD (0.1)		0.49	0.37	0.33	0.81	0.34		

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. 2011 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
		27-Jun	27-Jul	7-Sep	15-Oct	TOTAL		VERNAL
	FD	Dry t/a						%
MS Sunstra 803	4	3.6 (1)	2.0 (3)	2.3 (1)	0.8 (28)	8.8 (1)	A	114.5
R57M129 FG	5	3.1 (12)	2.1 (1)	2.1 (17)	1.0 (10)	8.3 (2)	B	108.7
HybriForce 2400	4	3.5 (2)	1.8 (24)	2.2 (7)	0.8 (27)	8.3 (3)	B C	108.6
R57M130 FG	5	2.9 (23)	1.9 (11)	2.2 (4)	1.2 (3)	8.3 (4)	B C	108.1
DG4210	4	3.0 (21)	2.0 (5)	2.2 (3)	1.1 (9)	8.2 (5)	B C D	108.0
GrandStand	4	3.4 (3)	1.9 (9)	2.1 (16)	0.9 (25)	8.2 (6)	B C D	107.9
WL 357 HQ	4	3.2 (9)	1.9 (14)	2.2 (8)	1.0 (13)	8.2 (7)	B C D E	107.8
Integra 8400	4	3.2 (7)	1.8 (20)	2.3 (2)	0.9 (22)	8.2 (8)	B C D E	107.5
PGI 459	4	3.3 (6)	1.9 (8)	2.1 (10)	0.8 (29)	8.2 (9)	B C D E	107.4
WL 363 HQ	5	3.0 (18)	2.0 (2)	2.1 (14)	1.0 (14)	8.2 (10)	B C D E F	106.7
Dura 512	5	3.4 (5)	1.8 (26)	2.1 (13)	0.9 (24)	8.1 (11)	B C D E F G	106.1
AmeriStand407TQ	4	2.9 (24)	2.0 (6)	2.2 (5)	1.0 (12)	8.1 (12)	B C D E F G H	105.7
R46Bx162	4	3.1 (15)	1.9 (18)	2.1 (12)	1.0 (19)	8.0 (13)	B C D E F G H	105.1
Archer III	5	3.1 (11)	1.8 (21)	2.0 (25)	1.0 (17)	8.0 (14)	B C D E F G H I	104.7
R47M312 FG	4	2.8 (26)	2.0 (4)	2.1 (20)	1.1 (5)	8.0 (15)	B C D E F G H I	104.6
Mountaneer II	5	3.1 (10)	1.7 (31)	2.1 (9)	1.0 (18)	8.0 (16)	B C D E F G H I J	104.3
Syngenta 6422Q	4	3.1 (14)	1.8 (19)	2.0 (24)	1.0 (15)	8.0 (17)	C D E F G H I J	104.2
R56Bx212	5	2.7 (28)	1.9 (17)	2.2 (6)	1.1 (4)	7.9 (18)	D E F G H I J K	103.5
Rebound 6.0	4	3.0 (19)	2.0 (7)	2.0 (22)	0.8 (26)	7.9 (19)	E F G H I J K	103.4
R46Bx163	4	3.1 (16)	1.9 (16)	2.0 (23)	0.9 (20)	7.9 (20)	E F G H I J K	103.4
MasterPiece II	4	2.6 (30)	1.9 (10)	2.1 (11)	1.2 (1)	7.9 (21)	E F G H I J K	103.3
Integra 8300	3	3.1 (13)	1.8 (22)	2.1 (15)	0.8 (30)	7.8 (22)	F G H I J K	102.5
Syngenta 6422Q-EMD	4	3.0 (22)	1.8 (23)	2.1 (19)	1.0 (16)	7.8 (23)	F G H I J K	102.2
R47M120 FG	4	3.0 (20)	1.8 (25)	2.0 (29)	1.0 (11)	7.8 (24)	G H I J K	102.0
Lightening IV	4	2.8 (27)	1.9 (15)	2.0 (30)	1.1 (8)	7.7 (25)	H I J K L	101.3
Xtra-3	4	3.0 (17)	1.7 (30)	2.1 (18)	0.9 (21)	7.7 (26)	H I J K L	101.3
R48W224 FG	4	2.7 (29)	1.9 (13)	2.0 (28)	1.1 (6)	7.7 (27)	I J K L M	100.6
Vernal	2	3.4 (4)	1.8 (28)	2.1 (21)	0.5 (31)	7.6 (28)	J K L M	100.0
R48M153 FG	4	2.8 (25)	1.9 (12)	2.0 (31)	0.9 (23)	7.6 (29)	K L M	99.3
R65BD278	6	2.6 (31)	1.6 (32)	2.0 (26)	1.2 (2)	7.4 (30)	L M	96.9
Minerva	5	2.5 (32)	1.7 (29)	2.0 (27)	1.1 (7)	7.4 (31)	M	96.5
Rugged	3	3.2 (8)	1.8 (27)	2.0 (32)	0.4 (32)	7.4 (32)	M	96.4
MEAN		3.04	1.87	2.09	0.95	7.96		
CV		7.5	8.6	6.8	8.0	4.0		
LSD (0.1)		0.24	0.17	0.15	0.08	0.34		

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 Yields, UC Davis Alfalfa Cultivar Trial (Trial planted Sept. 25, 2008)

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	YEAR		% of
	FD	26-Apr	3-Jun	5-Jul	29-Jul	12-Sep	28-Oct	TOTAL		CUF 101
		Dry t/a								%
Released Varieties										
HybriForce 620	6	1.8 (1)	2.2 (1)	2.5 (1)	1.6 (5)	1.9 (9)	1.3 (1)	11.4 (1)	A	157.9
Cisco	6	1.8 (2)	2.1 (2)	2.5 (3)	1.3 (33)	1.8 (26)	1.0 (31)	10.5 (4)	A B C D	145.4
HybriForce 800	8	1.5 (11)	2.1 (3)	2.3 (17)	1.6 (10)	1.9 (10)	1.1 (18)	10.4 (5)	A B C D E	144.1
PGI 709	7	1.4 (20)	2.0 (6)	2.4 (11)	1.5 (12)	1.9 (5)	1.1 (17)	10.4 (6)	A B C D E	144.0
Magna 801 FQ	8	1.5 (7)	2.0 (12)	2.2 (24)	1.7 (2)	1.9 (13)	1.1 (21)	10.4 (7)	A B C D E	144.0
PGI 608	6	1.7 (4)	2.0 (10)	2.2 (27)	1.5 (17)	1.8 (27)	1.1 (8)	10.3 (8)	B C D E F	142.4
Conquistador	8	1.3 (30)	1.9 (24)	2.2 (32)	1.6 (4)	2.0 (2)	1.2 (3)	10.2 (9)	B C D E F G	141.7
HybriForce 700	7	1.5 (13)	2.1 (4)	2.4 (9)	1.4 (25)	1.8 (20)	1.1 (24)	10.2 (10)	B C D E F G	141.6
GrandSlam	8	1.3 (32)	1.9 (15)	2.5 (4)	1.5 (12)	1.9 (7)	1.0 (29)	10.2 (11)	B C D E F G	140.9
Arriba II	7	1.5 (12)	1.9 (23)	2.2 (24)	1.5 (21)	1.9 (11)	1.2 (4)	10.1 (14)	B C D E F G H	140.0
Archer III	5	1.5 (10)	2.0 (8)	2.5 (2)	1.4 (24)	1.7 (35)	1.0 (33)	10.1 (15)	B C D E F G H	140.0
Integra 8800	8	1.3 (29)	1.9 (18)	2.4 (7)	1.5 (22)	1.8 (29)	1.1 (11)	10.0 (17)	B C D E F G H	138.7
Pacifico	9	1.4 (21)	1.9 (29)	2.1 (38)	1.6 (9)	1.8 (18)	1.1 (15)	9.9 (18)	B C D E F G H	137.7
Artesian Sunrise	7	1.4 (16)	2.0 (12)	2.3 (16)	1.3 (32)	1.8 (23)	1.1 (10)	9.9 (19)	B C D E F G H	137.7
Integra 8801R	8	1.4 (25)	1.8 (38)	2.2 (28)	1.5 (14)	1.9 (15)	1.1 (20)	9.8 (24)	B C D E F G H	136.5
58R51 RR	8	1.3 (33)	1.8 (38)	2.3 (18)	1.5 (19)	1.9 (12)	1.2 (7)	9.8 (25)	C D E F G H	135.9
Magna 995	9	1.2 (35)	1.9 (25)	2.2 (37)	1.6 (7)	1.8 (21)	1.0 (27)	9.7 (26)	D E F G H	135.0
TruTest	6	1.4 (15)	1.9 (27)	2.3 (21)	1.3 (38)	1.8 (25)	1.1 (23)	9.7 (28)	D E F G H I	133.8
Sutter	6	1.5 (8)	1.9 (21)	2.1 (40)	1.3 (28)	1.7 (34)	1.0 (35)	9.6 (29)	D E F G H I J	132.5
Lightning IV	4	1.4 (19)	1.9 (22)	2.4 (10)	1.3 (35)	1.6 (37)	0.9 (37)	9.5 (31)	D E F G H I J	131.6
DKA 50-18	5	1.4 (24)	2.0 (9)	2.3 (14)	1.2 (39)	1.7 (33)	0.9 (41)	9.5 (32)	D E F G H I J	131.4
Integra 8600	6	1.3 (34)	1.8 (30)	2.1 (39)	1.3 (34)	1.8 (22)	1.1 (12)	9.4 (33)	E F G H I J K	130.5
56S82	6	1.3 (31)	1.8 (31)	2.2 (31)	1.3 (36)	1.7 (32)	1.1 (22)	9.4 (34)	E F G H I J K	129.9
Dura 843	8	1.4 (18)	2.0 (14)	2.3 (15)	1.1 (42)	1.6 (38)	0.9 (38)	9.3 (35)	F G H I J K	128.8
WL 530HQ	8	1.2 (41)	1.7 (40)	2.1 (41)	1.4 (26)	1.9 (14)	1.1 (25)	9.3 (37)	F G H I J K	128.3
Integra 8401R	8	1.5 (9)	1.8 (34)	2.2 (29)	1.3 (28)	1.5 (42)	0.9 (40)	9.2 (38)	F G H I J K	128.1
8R100	8	1.2 (40)	1.7 (42)	2.2 (35)	1.3 (31)	1.8 (28)	1.1 (19)	9.2 (39)	G H I J K	127.4
Tango	6	1.4 (23)	1.9 (28)	2.1 (43)	1.1 (43)	1.6 (36)	1.0 (32)	9.0 (40)	H I J K	125.4
4R200	4	1.2 (39)	1.8 (37)	2.3 (22)	1.1 (40)	1.4 (45)	0.9 (42)	8.6 (41)	I J K	119.7
WL 440HQ	5	1.2 (37)	1.8 (35)	2.2 (34)	1.0 (44)	1.5 (43)	0.9 (39)	8.6 (42)	I J K	119.6
Magna 788	7	1.1 (44)	1.5 (44)	2.3 (20)	1.3 (37)	1.6 (39)	0.8 (43)	8.6 (43)	J K	118.9
6R100	6	1.2 (38)	1.6 (43)	2.2 (36)	1.1 (41)	1.4 (44)	0.8 (44)	8.4 (44)	K	115.8
Cuf 101	9	0.8 (45)	1.3 (45)	1.7 (45)	1.0 (45)	1.6 (41)	0.8 (45)	7.2 (45)	L	100.0
Experimental Varieties										
SW 9812	9	1.6 (6)	2.0 (7)	2.4 (6)	1.7 (1)	2.0 (1)	1.1 (13)	10.9 (2)	A B	151.1
DS 067348	8	1.7 (3)	2.1 (5)	2.4 (8)	1.6 (11)	1.9 (6)	1.2 (2)	10.9 (3)	A B C	150.4
CW 38065	8	1.2 (36)	1.9 (26)	2.2 (23)	1.7 (3)	1.9 (8)	1.2 (6)	10.1 (12)	B C D E F G H	140.1
DS 077601	8	1.4 (14)	1.9 (20)	2.4 (5)	1.5 (20)	1.8 (19)	1.0 (28)	10.1 (13)	B C D E F G H	140.1
FG83T048	8	1.4 (26)	1.8 (33)	2.3 (13)	1.6 (8)	1.9 (16)	1.1 (14)	10.1 (16)	B C D E F G H	139.6
CW 27092	7	1.4 (22)	2.0 (11)	2.3 (12)	1.4 (23)	1.7 (30)	1.0 (26)	9.9 (20)	B C D E F G H	137.4
SW 9816	9	1.4 (17)	1.9 (17)	2.1 (44)	1.5 (16)	1.9 (17)	1.1 (9)	9.9 (21)	B C D E F G H	137.2
CW 26089	6	1.4 (28)	1.9 (16)	2.2 (30)	1.6 (6)	1.8 (24)	1.0 (34)	9.9 (22)	B C D E F G H	136.8
SW 9813	9	1.4 (27)	1.7 (41)	2.2 (33)	1.5 (15)	2.0 (3)	1.2 (5)	9.9 (23)	B C D E F G H	136.6
DS 071842	6	1.7 (5)	1.9 (19)	2.2 (26)	1.3 (28)	1.6 (40)	1.0 (36)	9.7 (27)	D E F G H I	134.2
SW 9803	9	1.1 (43)	1.8 (36)	2.1 (42)	1.5 (18)	2.0 (4)	1.1 (16)	9.5 (30)	D E F G H I J	132.0
DS 067092	8	1.2 (42)	1.8 (32)	2.3 (19)	1.3 (27)	1.7 (31)	1.0 (30)	9.3 (36)	F G H I J K	128.8
MEAN		1.38	1.88	2.26	1.41	1.76	1.05	9.73		
CV		18.9	10.2	8.6	15.3	11.0	14.3	9.2		
LSD (0.1)		0.31	0.23	0.23	0.26	0.23	0.18	1.07		

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 5. 2009-2011 YIELDS. UC DAVIS ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 09/25/08

		2009	2010	2011	Average		% of
	FD	Yield	Yield	Yield			CUF 101
			Dry t/a				%
Released Varieties							
HybriForce 620	6	13.0 (2)	10.5 (1)	11.4 (1)	11.6 (1)	A	136.6
Magna 801 FQ	8	13.1 (1)	9.8 (13)	10.4 (7)	11.1 (4)	ABC	130.4
PGI 709	7	12.5 (5)	10.1 (8)	10.4 (6)	11.0 (5)	ABCD	129.2
HybriForce 800	8	12.4 (7)	10.0 (9)	10.4 (5)	10.9 (6)	ABCDE	128.7
Conquistador	8	12.1 (19)	10.2 (4)	10.2 (9)	10.8 (7)	ABCDEF	127.4
58R51 RR	8	12.1 (16)	10.3 (3)	9.8 (25)	10.7 (9)	BCDEFG	126.3
Integra 8800	8	12.0 (20)	10.2 (5)	10.0 (17)	10.7 (10)	BCDEFG	126.2
Arriba II	7	12.3 (9)	9.4 (22)	10.1 (14)	10.6 (12)	BCDEFGH	124.6
WL 530HQ	8	12.7 (3)	9.8 (15)	9.3 (37)	10.6 (13)	BCDEFGH	124.4
GrandSlam	8	11.3 (26)	10.1 (6)	10.2 (11)	10.5 (14)	BCDEFGH	123.5
HybriForce 700	7	11.1 (31)	10.1 (7)	10.2 (10)	10.5 (16)	BCDEFGHI	123.1
Pacifico	9	12.1 (18)	9.3 (23)	9.9 (18)	10.5 (17)	BCDEFGHI	122.9
PGI 608	6	12.2 (13)	8.9 (37)	10.3 (8)	10.4 (18)	BCDEFGHI	122.6
56S82	6	12.3 (11)	9.3 (25)	9.4 (34)	10.3 (21)	CDEFGHIJ	121.1
Archer III	5	11.6 (21)	9.0 (32)	10.1 (15)	10.3 (22)	DEFGHIJ	120.5
Artesian Sunrise	7	11.3 (27)	9.3 (24)	9.9 (19)	10.2 (26)	DEFGHIJK	119.6
Integra 8600	6	11.2 (29)	9.8 (14)	9.4 (33)	10.2 (27)	EFGHIJK	119.3
8R100	8	12.3 (10)	8.8 (38)	9.2 (39)	10.1 (28)	FGHIJK	118.8
Magna 995	9	11.3 (24)	9.3 (27)	9.7 (26)	10.1 (29)	FGHIJK	118.7
Tango	6	11.4 (23)	9.5 (19)	9.0 (40)	10.0 (32)	GHIJK	117.4
Integra 8801R	8	11.0 (33)	9.0 (34)	9.8 (24)	10.0 (33)	GHIJK	117.0
Cisco	6	10.4 (37)	8.9 (36)	10.5 (4)	9.9 (34)	GHIJK	116.7
Magna 788	7	11.4 (22)	9.7 (18)	8.6 (43)	9.9 (35)	H I J K	116.4
Sutter	6	10.9 (35)	9.2 (28)	9.6 (29)	9.9 (36)	H I J K	116.4
Dura 843	8	10.8 (36)	8.9 (35)	9.3 (35)	9.7 (37)	I J K L	113.5
TruTest	6	10.1 (41)	9.0 (31)	9.7 (28)	9.6 (38)	J K L	112.6
Lightning IV	4	10.3 (38)	8.7 (40)	9.5 (31)	9.5 (39)	J K L	111.7
DKA 50-18	5	10.3 (39)	8.4 (42)	9.5 (32)	9.4 (40)	K L	110.4
WL 440HQ	5	9.7 (43)	8.7 (41)	8.6 (42)	9.0 (41)	L M	105.9
Integra 8401R	8	9.8 (42)	7.8 (45)	9.2 (38)	9.0 (42)	L M	105.3
4R200	4	10.2 (40)	8.0 (43)	8.6 (41)	8.9 (43)	L M	105.1
Cuf 101	9	9.5 (44)	8.8 (39)	7.2 (45)	8.5 (44)	M	100.0
6R100	6	9.2 (45)	7.9 (44)	8.4 (44)	8.5 (45)	M	99.7
Experimental Varieties							
DS 067348	8	12.7 (4)	10.0 (10)	10.9 (3)	11.2 (2)	AB	131.3
SW 9812	9	12.5 (6)	9.9 (11)	10.9 (2)	11.1 (3)	ABC	130.6
FG 83T048	8	12.4 (8)	9.8 (16)	10.1 (16)	10.7 (8)	BCDEFG	126.3
SW 9813	9	12.2 (12)	9.8 (17)	9.9 (23)	10.6 (11)	BCDEFGH	124.7
DS 077601	8	12.2 (14)	9.3 (26)	10.1 (13)	10.5 (15)	BCDEFGH	123.5
CW 38065	8	11.2 (30)	9.9 (12)	10.1 (12)	10.4 (19)	BCDEFGHI	122.4
DS 071842	6	12.1 (17)	9.5 (20)	9.7 (27)	10.4 (20)	BCDEFGHI	122.3
DS 067092	8	11.0 (34)	10.4 (2)	9.3 (36)	10.2 (23)	DEFGHIJ	120.3
SW 9803	9	12.1 (15)	9.0 (33)	9.5 (30)	10.2 (24)	DEFGHIJ	120.1
SW 9816	9	11.3 (25)	9.4 (21)	9.9 (21)	10.2 (25)	DEFGHIJK	120.0
CW 26089	6	11.3 (28)	9.1 (30)	9.9 (22)	10.1 (30)	FGHIJK	118.5
CW 27092	7	11.1 (32)	9.1 (29)	9.9 (20)	10.0 (31)	FGHIJK	118.0
MEAN		11.47	9.38	9.73	10.19		
CV		9.1	8.1	9.2	6.8		
LSD (0.1)		1.24	0.91	1.07	0.82		

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. 2011 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	
		14-Apr	11-May	15-Jun	20-Jul	17-Aug	14-Sep	12-Oct	TOTAL	CUF 101	
	FD	Dry t/a									%
Released Varieties											
Mycogen 4N900	9	2.3 (1)	1.6 (3)	2.4 (2)	2.4 (1)	2.1 (3)	1.4 (18)	1.2 (13)	13.5 (1) A		122.7
Integra 8800	8	2.3 (2)	1.6 (4)	2.5 (1)	2.2 (8)	2.2 (1)	1.4 (23)	1.1 (34)	13.3 (2) AB		121.0
SW 9828	9	2.2 (3)	1.6 (10)	2.3 (7)	2.3 (5)	1.8 (23)	1.4 (19)	1.2 (14)	12.9 (6) ABCDEF		117.3
AmeriStand 901TS	9	2.1 (10)	1.5 (24)	2.3 (13)	2.2 (7)	2.0 (10)	1.5 (9)	1.2 (11)	12.8 (7) ABCDEFG		116.2
AmeriStand 803T	8	2.1 (9)	1.5 (25)	2.3 (12)	2.1 (27)	1.9 (16)	1.5 (5)	1.2 (6)	12.6 (9) ABCDEFGH		114.7
SW 9812	9	2.0 (29)	1.5 (21)	2.2 (23)	2.2 (12)	2.0 (11)	1.5 (7)	1.2 (9)	12.5 (12) ABCDEFGH		113.9
WL 656HQ	9	1.9 (34)	1.5 (32)	2.2 (20)	2.1 (14)	2.1 (6)	1.4 (13)	1.2 (12)	12.4 (15) ABCDEFGH		113.0
Pacifico	8	2.1 (8)	1.6 (15)	2.2 (24)	2.1 (19)	1.8 (27)	1.4 (15)	1.1 (29)	12.3 (19) BCDEFGHIJ		112.2
SW 9821	9	2.0 (30)	1.5 (23)	2.2 (22)	2.0 (32)	2.0 (12)	1.4 (31)	1.1 (19)	12.2 (20) CDEFGHIJ		111.1
Integra 8900	9	2.0 (20)	1.5 (28)	2.0 (41)	2.1 (26)	1.8 (33)	1.5 (1)	1.2 (4)	12.1 (23) DEFGHIJ		110.7
Grand Slam	4	2.0 (23)	1.5 (16)	2.2 (29)	2.0 (36)	1.8 (25)	1.4 (20)	1.1 (30)	12.1 (25) DEFGHIJK		109.8
SW 9813	9	1.9 (31)	1.4 (45)	2.2 (17)	2.1 (21)	1.9 (18)	1.4 (22)	1.1 (31)	12.0 (26) EFGHIJK		109.6
6610N	6	2.1 (11)	1.6 (11)	2.4 (5)	1.9 (42)	1.7 (40)	1.3 (41)	0.9 (47)	11.9 (29) EFGHIJKL		108.8
SW 9816	9	2.0 (17)	1.5 (29)	2.2 (18)	2.0 (40)	1.8 (35)	1.4 (38)	1.1 (32)	11.9 (30) EFGHIJKL		108.8
HybriForce-800	8	1.9 (32)	1.5 (34)	2.2 (19)	2.1 (17)	1.8 (26)	1.3 (46)	1.0 (42)	11.8 (33) EFGHIJKLM		107.9
SW 9803	9	2.1 (12)	1.4 (38)	2.2 (16)	2.0 (31)	1.7 (41)	1.4 (32)	1.0 (41)	11.8 (34) FGHIJKLM		107.5
NuMex	7	2.0 (28)	1.6 (14)	2.1 (34)	2.0 (28)	1.6 (43)	1.4 (33)	1.0 (38)	11.7 (35) GHIJKLM		106.7
Dura 843	8	1.9 (39)	1.6 (12)	2.2 (27)	2.0 (35)	1.8 (31)	1.3 (45)	0.9 (48)	11.7 (37) HIJKLM		106.2
UC Impalo	9	1.9 (40)	1.4 (42)	2.1 (35)	2.0 (37)	1.7 (37)	1.4 (39)	1.1 (33)	11.6 (40) HIJKLM		105.5
SW 9711	9	1.7 (46)	1.4 (40)	2.0 (40)	2.1 (16)	1.9 (20)	1.4 (35)	1.0 (43)	11.5 (42) HIJKLM		105.1
Sunquest	9.5	2.0 (15)	1.4 (37)	2.0 (44)	1.8 (47)	1.4 (48)	1.4 (16)	1.2 (16)	11.3 (45) JKLM		102.8
CUF 101	9	1.7 (47)	1.4 (38)	2.0 (45)	1.9 (41)	1.7 (38)	1.3 (44)	0.9 (46)	11.0 (46) KLM		100.0
SW 900	9	1.7 (48)	1.2 (48)	1.9 (47)	1.9 (45)	1.6 (45)	1.4 (24)	1.2 (10)	10.8 (48) M		98.6
Experimental Varieties											
FG R97T704	9	2.0 (24)	1.6 (6)	2.4 (5)	2.4 (2)	2.2 (2)	1.5 (8)	1.3 (2)	13.3 (3) ABC		120.9
DS097040	9	2.2 (5)	1.7 (2)	2.4 (4)	2.3 (4)	2.1 (4)	1.4 (21)	1.1 (27)	13.1 (4) ABCD		119.4
DS385	8	2.1 (7)	1.6 (8)	2.3 (11)	2.2 (6)	2.1 (5)	1.4 (40)	1.1 (21)	12.9 (5) ABCDE		117.4
FG R96Bx301	9	2.0 (22)	1.5 (20)	2.4 (3)	2.3 (3)	2.0 (7)	1.3 (42)	1.0 (44)	12.6 (8) ABCDEFGH		114.8
FG R96Bx303	9	2.0 (15)	1.4 (41)	2.3 (8)	2.2 (9)	2.0 (9)	1.4 (36)	1.1 (26)	12.5 (10) ABCDEFGH		114.0
DS097643	9	2.0 (21)	1.7 (1)	2.3 (9)	2.1 (20)	1.9 (22)	1.4 (14)	1.1 (35)	12.5 (11) ABCDEFGH		113.9
UC 469		2.0 (26)	1.5 (22)	2.3 (14)	2.1 (18)	1.9 (21)	1.5 (6)	1.2 (8)	12.4 (13) ABCDEFGH		113.3
DS097645	10	2.0 (18)	1.6 (5)	2.3 (15)	2.2 (10)	2.0 (8)	1.3 (48)	1.0 (37)	12.4 (14) ABCDEFGH		113.0
CW 059051	9	2.0 (19)	1.5 (19)	2.1 (31)	2.1 (22)	1.9 (15)	1.5 (10)	1.2 (3)	12.4 (16) BCDEFGHI		112.8
FG 96T706	9	2.2 (4)	1.5 (26)	2.1 (33)	2.0 (30)	1.8 (31)	1.5 (4)	1.2 (5)	12.4 (17) BCDEFGHIJ		112.6
DS097041	9	2.1 (6)	1.6 (7)	2.3 (10)	2.1 (15)	1.8 (28)	1.4 (34)	0.9 (45)	12.3 (18) BCDEFGHIJ		112.3
UC 470		1.9 (33)	1.6 (13)	2.2 (20)	2.1 (25)	1.9 (17)	1.4 (29)	1.1 (22)	12.2 (21) CDEFGHIJ		111.0
FG R97T715	9	1.9 (35)	1.5 (27)	2.2 (26)	2.1 (24)	2.0 (13)	1.4 (27)	1.1 (20)	12.2 (22) DEFGHIJ		110.9
CW 068068	8	1.9 (41)	1.5 (17)	2.2 (28)	2.1 (22)	1.8 (34)	1.4 (12)	1.2 (7)	12.1 (24) DEFGHIJ		110.1
Ameristand 901STQ(EMD)	9	2.1 (13)	1.4 (36)	2.1 (38)	2.0 (34)	1.9 (19)	1.4 (26)	1.1 (17)	12.0 (27) EFGHIJK		109.5
UC 471		1.9 (38)	1.5 (33)	2.1 (32)	2.1 (13)	1.8 (23)	1.4 (30)	1.1 (23)	12.0 (28) EFGHIJK		109.3
FG R97T701	9	1.9 (37)	1.5 (31)	2.2 (25)	2.0 (29)	1.8 (36)	1.4 (17)	1.1 (18)	11.9 (31) EFGHIJKL		108.7
FG R97T708	9	1.8 (43)	1.4 (35)	2.0 (42)	2.0 (33)	1.8 (30)	1.5 (3)	1.3 (1)	11.9 (32) EFGHIJKLM		108.4
FG R97T710	9	1.7 (45)	1.4 (46)	2.1 (30)	2.2 (11)	1.9 (14)	1.3 (43)	1.0 (36)	11.7 (36) GHIJKLM		106.7
FG R97T707	9	2.0 (25)	1.5 (30)	2.0 (42)	1.9 (44)	1.6 (44)	1.5 (2)	1.1 (25)	11.7 (38) HIJKLM		106.2
FG R96Bx304	9	2.1 (14)	1.5 (18)	2.1 (36)	1.9 (43)	1.7 (42)	1.3 (47)	1.0 (39)	11.6 (39) HIJKLM		105.6
FG R96Bx308	9	1.7 (44)	1.3 (47)	2.1 (37)	2.0 (38)	1.8 (28)	1.4 (25)	1.2 (15)	11.6 (41) HIJKLM		105.3
DS097569	8	2.0 (27)	1.6 (9)	2.1 (39)	1.9 (46)	1.5 (46)	1.5 (11)	1.0 (40)	11.5 (43) HIJKLM		105.0
UC 493		1.9 (42)	1.4 (44)	1.9 (46)	2.0 (38)	1.7 (39)	1.4 (37)	1.1 (27)	11.3 (44) IJKLM		103.2
FG R97M711	9	1.9 (36)	1.4 (43)	1.9 (48)	1.8 (48)	1.5 (47)	1.4 (28)	1.1 (24)	10.9 (47) LM		99.1
MEAN		1.99	1.51	2.18	2.08	1.84	1.41	1.10	12.10		
CV		9.8	7.8	10.0	11.7	15.7	7.0	9.7	7.5		
LSD (0.1)		0.23	0.14	0.26	NS	0.34	0.12	0.13	1.08		

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 7. 2011 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	YEAR		% of
		19-Apr	23-May	5-Jul	22-Jul	18-Aug	20-Sep	20-Oct	TOTAL		CUF101
	FD	Dry t/a									%
Released Varieties											
WL 656HQ	9	2.0 (1)	2.8 (2)	2.2 (2)	2.5 (3)	1.7 (1)	1.5 (1)	1.2 (2)	13.9 (1)	A	112.2
Ameristand 901STQ	9	1.9 (6)	2.6 (6)	2.1 (6)	2.6 (1)	1.6 (3)	1.5 (2)	1.1 (4)	13.4 (4)	ABCD	108.3
Hybriforce 800	8	1.9 (4)	2.8 (1)	2.2 (3)	2.4 (8)	1.6 (6)	1.4 (7)	1.1 (8)	13.3 (5)	ABCDE	107.9
Magna 995	9	1.8 (9)	2.6 (7)	2.0 (10)	2.5 (5)	1.5 (8)	1.3 (9)	1.1 (12)	12.8 (9)	ABCDEFGH	103.7
UC 452		1.8 (8)	2.5 (10)	2.1 (8)	2.2 (13)	1.5 (12)	1.3 (10)	1.1 (10)	12.5 (10)	ABCDEFGH	100.9
CUF101	9	1.6 (19)	2.4 (18)	2.0 (12)	2.3 (10)	1.5 (9)	1.4 (6)	1.1 (11)	12.4 (11)	BCDEFGHI	100.0
Highline	9	1.7 (12)	2.5 (9)	2.0 (12)	2.2 (14)	1.5 (10)	1.3 (13)	1.0 (17)	12.3 (12)	BCDEFGHI	99.2
SW9803	9	1.8 (10)	2.5 (15)	1.9 (21)	2.2 (11)	1.4 (20)	1.3 (15)	1.1 (13)	12.1 (13)	CDEFGHI	98.2
CW 585	8	1.6 (17)	2.5 (17)	2.0 (17)	2.2 (16)	1.4 (13)	1.3 (12)	1.1 (5)	12.1 (14)	CDEFGHI	98.0
CW 95	9	1.7 (13)	2.5 (12)	2.0 (16)	2.2 (17)	1.4 (18)	1.3 (16)	1.0 (15)	12.0 (15)	DEFGHI	97.2
CW 485	8	1.7 (15)	2.5 (16)	1.9 (20)	2.2 (15)	1.4 (14)	1.2 (17)	1.0 (22)	11.9 (16)	EFGHI	96.4
CW 8028	8	1.6 (23)	2.5 (13)	2.0 (15)	2.2 (12)	1.4 (15)	1.2 (18)	1.0 (20)	11.9 (17)	FGHI	96.1
Integra 8900	9	1.7 (16)	2.5 (14)	2.0 (14)	2.1 (21)	1.4 (17)	1.2 (20)	1.0 (21)	11.8 (18)	FGHI	95.4
Medina		1.6 (18)	2.4 (22)	1.8 (23)	2.1 (19)	1.4 (19)	1.3 (14)	1.0 (18)	11.7 (19)	FGHI	94.7
BAR 9242		1.6 (22)	2.4 (21)	2.1 (9)	2.1 (18)	1.4 (16)	1.1 (22)	0.9 (23)	11.7 (20)	FGHI	94.4
AmeriStand 803	8	1.6 (21)	2.4 (23)	2.0 (18)	2.1 (20)	1.3 (22)	1.2 (19)	1.0 (16)	11.6 (21)	GHI	93.7
GrandSlam	8	1.5 (24)	2.3 (24)	1.8 (24)	2.0 (24)	1.2 (24)	1.1 (24)	1.0 (19)	10.9 (24)	I	88.4
Experimental Varieties											
FG 94T02	9	2.0 (3)	2.7 (3)	2.3 (1)	2.5 (5)	1.7 (2)	1.4 (3)	1.2 (3)	13.7 (2)	AB	111.0
FG 96T706	9	2.0 (2)	2.7 (5)	2.2 (4)	2.5 (7)	1.6 (4)	1.4 (5)	1.2 (1)	13.5 (3)	ABC	109.2
SW9812	9	1.9 (5)	2.7 (4)	2.2 (5)	2.5 (2)	1.5 (11)	1.3 (11)	1.1 (7)	13.1 (6)	ABCDEF	106.2
DS593	9	1.8 (11)	2.5 (8)	2.0 (11)	2.5 (4)	1.5 (7)	1.4 (4)	1.1 (6)	12.9 (7)	ABCDEFG	104.4
FG 96T707	9	1.9 (7)	2.5 (11)	2.1 (7)	2.3 (9)	1.6 (5)	1.4 (7)	1.1 (9)	12.8 (8)	ABCDEFGH	103.9
DS077661	8	1.6 (20)	2.4 (20)	2.0 (19)	2.0 (22)	1.3 (21)	1.2 (21)	0.9 (23)	11.5 (22)	GHI	92.8
DS067092	8	1.7 (14)	2.4 (19)	1.9 (22)	2.0 (23)	1.2 (23)	1.1 (23)	1.0 (14)	11.4 (23)	HI	92.5
MEAN		1.74	2.52	2.03	2.27	1.46	1.30	1.05	12.38		
CV		14.2	11.0	11.7	13.2	20.1	15.0	14.4	11.9		
LSD (0.1)		0.24	NS	0.23	0.30	NS	0.19	NS	1.46		

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 8. 2010-11 YIELDS. WSREC ALFALFA SALINITY TRIAL. TRIAL PLANTED 10/27/09

		2010 Yield	2011 Yield	Average	% of CUF 101
	FD		Dry t/a		%
Released Varieties					
Hybriforce 800	8	10.7 (2)	13.3 (5)	12.0 (2)	107.2
WL 656HQ	9	9.7 (12)	13.9 (1)	11.8 (3)	105.3
Ameristand 901STQ	9	9.6 (17)	13.4 (4)	11.5 (4)	102.4
Medina		10.9 (1)	11.7 (19)	11.3 (7)	100.7
Magna 995	9	9.7 (13)	12.8 (9)	11.3 (8)	100.6
UC 452		10.0 (9)	12.5 (10)	11.2 (11)	100.4
CUF101	9	10.1 (7)	12.4 (11)	11.2 (12)	100.0
Highline	9	10.1 (6)	12.3 (12)	11.2 (13)	99.7
CW 485	8	10.3 (5)	11.9 (16)	11.1 (14)	99.2
CW 95	9	10.0 (8)	12.0 (15)	11.0 (15)	98.4
CW 585	8	9.8 (11)	12.1 (14)	11.0 (16)	97.8
CW 8028	8	9.9 (10)	11.9 (17)	10.9 (18)	97.1
SW9803	9	8.8 (24)	12.1 (13)	10.5 (20)	93.3
BAR 9242		9.2 (21)	11.7 (20)	10.5 (21)	93.3
Integra 8900	9	9.1 (23)	11.8 (18)	10.4 (22)	93.3
AmeriStand 803	8	9.2 (22)	11.6 (21)	10.4 (23)	92.6
GrandSlam	8	9.6 (16)	10.9 (24)	10.3 (24)	91.7
Experimental Varieties					
FG 94T02	9	10.4 (3)	13.7 (2)	12.1 (1)	107.7
FG 96T706	9	9.4 (20)	13.5 (3)	11.4 (5)	102.1
DS593	9	9.7 (14)	12.9 (7)	11.3 (6)	100.8
SW9812	9	9.4 (19)	13.1 (6)	11.3 (9)	100.5
FG 96T707	9	9.7 (15)	12.8 (8)	11.3 (10)	100.5
DS077661	8	10.4 (4)	11.5 (22)	10.9 (17)	97.4
DS067092	8	9.5 (18)	11.4 (23)	10.5 (19)	93.6
MEAN		9.80	12.38	11.09	
CV		10.2	11.9	9.5	
LSD (0.1)		0.99	1.46	NS	

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 Fishers (protected) LSD.

FD = Fall Dormancy reported by seed companies.

TABLE 9. 2011 YIELDS, LANCASTER ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/15/09

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	YEAR		% of
	FD	19-May	29-Jun	25-Jul	22-Aug	3-Oct	15-Nov	TOTAL		CUF101
		Dry t/a								%
Released Varieties										
HybriForce-620	6	2.5 (1)	2.7 (2)	2.3 (1)	1.9 (1)	1.3 (3)	0.8 (23)	11.4 (1)	A	118.8
GrandSlam	8	2.3 (8)	2.4 (5)	2.1 (7)	1.8 (6)	1.3 (1)	0.9 (5)	11.0 (2)	AB	113.9
PGI 709	7	2.4 (4)	2.4 (7)	2.1 (9)	1.8 (8)	1.2 (9)	0.9 (11)	10.8 (3)	BC	112.3
HybriForce-2600	8	2.2 (15)	2.7 (1)	2.0 (17)	1.8 (4)	1.2 (7)	0.7 (26)	10.7 (4)	BCD	111.2
WL 440HQ	6	2.4 (2)	2.4 (6)	2.2 (3)	1.6 (22)	1.2 (10)	0.8 (19)	10.7 (5)	BCD	111.0
Bar 9242	8.5	2.1 (17)	2.4 (8)	2.2 (6)	1.8 (3)	1.3 (2)	1.0 (1)	10.7 (6)	BCD	111.0
Integra 8600	6	2.3 (13)	2.6 (3)	2.2 (5)	1.5 (27)	1.2 (11)	0.8 (24)	10.6 (7)	BCDE	110.0
PGI 704	7	2.3 (14)	2.6 (4)	2.1 (16)	1.8 (13)	1.2 (14)	0.7 (25)	10.5 (8)	BCDE	109.5
HybriForce-800	8	2.4 (3)	2.2 (22)	2.2 (4)	1.6 (21)	1.1 (19)	1.0 (3)	10.5 (9)	BCDE	109.3
AmeriStand 803	8	2.3 (10)	2.2 (17)	1.9 (25)	1.8 (2)	1.3 (4)	1.0 (2)	10.5 (11)	BCDEF	109.0
Arriba II	7	2.4 (5)	2.3 (14)	2.0 (19)	1.8 (12)	1.1 (23)	0.9 (8)	10.4 (12)	BCDEF	108.5
Pacifico	9	2.2 (16)	2.3 (9)	2.1 (8)	1.8 (11)	1.1 (25)	0.9 (12)	10.4 (13)	CDEFG	108.0
HybriForce-700	7	2.3 (11)	2.3 (15)	2.1 (14)	1.8 (10)	1.1 (17)	0.8 (21)	10.3 (14)	CDEFG	107.5
Integra 8800	8	2.1 (19)	2.3 (13)	2.2 (2)	1.8 (7)	1.1 (24)	0.9 (4)	10.3 (15)	CDEFG	107.5
Medina	8.5	2.0 (20)	2.3 (10)	2.0 (23)	1.7 (17)	1.2 (5)	0.8 (20)	10.1 (18)	EFGH	105.4
WL 363HQ	5	2.1 (18)	2.2 (16)	2.1 (12)	1.8 (9)	1.2 (8)	0.6 (27)	10.1 (19)	EFGHI	104.6
Moapa 69	8	1.9 (23)	2.2 (18)	2.1 (10)	1.7 (15)	1.1 (20)	0.8 (22)	9.9 (22)	GHI	102.9
Cuf 101	9	1.7 (26)	2.2 (19)	1.9 (24)	1.7 (19)	1.2 (6)	0.8 (15)	9.6 (23)	HI	100.0
WL-535	8	1.8 (24)	2.2 (21)	2.0 (20)	1.6 (26)	1.2 (15)	0.8 (14)	9.6 (24)	HI	99.9
Highline	9	1.9 (22)	2.1 (24)	1.9 (26)	1.7 (20)	1.2 (12)	0.9 (13)	9.5 (25)	I	99.2
TechAg844		1.7 (25)	1.9 (26)	1.8 (27)	1.6 (23)	1.0 (27)	0.8 (18)	8.9 (27)	J	92.4
Experimental Varieties										
CW 058071		2.3 (7)	2.2 (20)	2.1 (13)	1.8 (5)	1.2 (16)	0.9 (9)	10.5 (10)	BCDEF	109.1
CW 057072		2.3 (9)	2.3 (11)	2.0 (22)	1.7 (14)	1.0 (26)	0.8 (16)	10.2 (16)	DEFG	106.5
DS067092	8	2.3 (12)	2.3 (12)	2.0 (21)	1.6 (25)	1.1 (18)	0.9 (6)	10.2 (17)	DEFG	106.0
DS077661	6	2.4 (6)	1.9 (25)	2.1 (15)	1.7 (16)	1.1 (22)	0.9 (7)	10.1 (20)	EFGHI	104.5
FG 65T077		2.0 (21)	2.1 (23)	2.1 (11)	1.7 (18)	1.2 (13)	0.8 (17)	10.0 (21)	F GHI	103.5
UC451		1.6 (27)	1.7 (27)	2.0 (18)	1.6 (24)	1.1 (21)	0.9 (10)	9.0 (26)	J	93.4
MEAN		2.16	2.28	2.06	1.72	1.17	0.84	10.24		
CV		10.3	6.3	9.3	8.9	14.6	8.6	4.4		
LSD (0.1)		0.27	0.17	NS	0.18	NS	0.09	0.54		

Trial seeded at 25 lb/acre viable seed in Lancaster, 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. 2010-11 YIELDS. LANCASTER ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/15/09

		2010	2011	Average		% of
		Yield	Yield			CUF101
	FD		Dry t/a			%
Released Varieties						
HybriForce-620	6	9.4 (1)	11.4 (1)	10.4 (1)	A	120.6
PGI 709	7	8.9 (6)	10.8 (3)	9.8 (2)	B	114.3
GrandSlam	8	8.7 (11)	11.0 (2)	9.8 (4)	B C	114.0
Integra 8600	6	9.1 (3)	10.6 (7)	9.8 (5)	B C	114.0
HybriForce-700	7	9.1 (2)	10.3 (14)	9.7 (6)	B C D	112.8
PGI 704	7	8.8 (8)	10.5 (8)	9.7 (8)	B C D	112.5
Bar 9242	8.5	8.7 (10)	10.7 (6)	9.7 (9)	B C D	112.5
Arriba II	7	8.9 (7)	10.4 (12)	9.7 (10)	B C D E	112.1
WL 440HQ	6	8.6 (15)	10.7 (5)	9.6 (11)	B C D E	111.8
HybridForce-800	8	8.7 (13)	10.5 (9)	9.6 (12)	B C D E	111.4
Pacifico	9	8.7 (12)	10.4 (13)	9.5 (13)	B C D E F	110.7
AmeriStand 803	8	8.5 (16)	10.5 (11)	9.5 (14)	B C D E F G	110.2
Integra 8800	8	8.4 (18)	10.3 (15)	9.4 (17)	B C D E F G H	109.1
Medina	8.5	8.5 (17)	10.1 (18)	9.3 (18)	C D E F G H	108.0
WL 363HQ	5	8.2 (20)	10.1 (19)	9.1 (20)	E F G H I	106.2
Moapa 69	8	8.1 (23)	9.9 (22)	9.0 (22)	G H I J	104.3
Highline	9	8.4 (19)	9.5 (25)	9.0 (23)	H I J	104.0
WL-535	8	7.9 (24)	9.6 (24)	8.8 (24)	I J	101.8
Cuf 101	9	7.6 (25)	9.6 (23)	8.6 (25)	J K	100.0
TechAg844		7.5 (26)	8.9 (27)	8.2 (26)	K	95.2
Experimental Varieties						
DS071842	8	9.0 (4)	10.7 (4)	9.8 (3)	B	114.1
CW 058071		8.9 (5)	10.5 (10)	9.7 (7)	B C D	112.7
DS077661	6	8.8 (9)	10.1 (20)	9.4 (15)	B C D E F G H	109.6
DS067092	8	8.6 (14)	10.2 (17)	9.4 (16)	B C D E F G H	109.3
CW 057072		8.2 (21)	10.2 (16)	9.2 (19)	D E F G H I	107.1
FG 65T077		8.1 (22)	10.0 (21)	9.0 (21)	F G H I J	104.9
UC451		7.4 (27)	9.0 (26)	8.2 (27)	K	95.1
MEAN		8.50	10.24	9.37		
CV		6.1	4.4	4.6		
LSD (0.1)		0.63	0.54	0.52		

Trial seeded at 25 lb/acre viable seed in Lancaster, CA.

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

FD = Fall Dormancy reported by seed companies.

TABLE 11. 2011 Alfalfa Fall Dormancy Trial Results.

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

Fall Dormancy		Tulelake ²			Davis ²			Imperial ²			Across locations			2011
Class ¹	Name	Score	NPH ³	Rank	Score	NPH ³	Rank	Score	NPH ³	Rank	Score	NPH ³	Rank	FDR ⁴
	UC-2876							8.48	2.91	61	8.48	2.91	64	12.31
	UC-2869							8.23	2.87	59	8.23	2.87	63	11.99
	UC-2875							7.95	2.82	56	7.95	2.82	62	11.65
11	UC-1604	7.52	2.74	58	5.86	2.42	60	8.79	2.97	63	7.50	2.74	61	11.07
	UC-2870							7.45	2.73	51	7.45	2.73	60	11.01
11	UC-1465				5.35	2.31	59	8.95	2.99	64	7.42	2.72	59	10.96
10	UC-1887	7.06	2.66	57	4.83	2.20	49	8.54	2.92	62	6.72	2.59	58	10.03
	UC-2872	6.78	2.60	54	5.16	2.27	58	7.95	2.82	55	6.71	2.59	57	10.01
	UC-2871	6.85	2.62	56	4.81	2.19	48	8.13	2.85	58	6.68	2.58	56	9.97
	UC-2877	7.61	2.76	59	4.89	2.21	52	7.58	2.75	52	6.63	2.57	55	9.90
10	Fertilac 10	6.41	2.53	51	4.90	2.21	53	8.31	2.88	60	6.47	2.54	54	9.67
	UC-2878	6.51	2.55	52	4.98	2.23	55	8.04	2.84	57	6.45	2.54	53	9.65
	UC-2671	6.26	2.50	46	5.03	2.24	56	6.98	2.64	48	6.29	2.51	52	9.43
9	Highline	6.39	2.53	50	4.84	2.20	50	7.81	2.80	54	6.29	2.51	51	9.42
	UC-impalo-WF	6.00	2.45	41	4.92	2.22	54	7.78	2.79	53	6.18	2.49	50	9.27
10	PGI 1007 BA	6.17	2.48	45	5.08	2.25	57	7.12	2.67	49	6.09	2.47	49	9.15
8	Conquistador	6.79	2.61	55	4.86	2.21	51	6.54	2.56	44	6.04	2.46	48	9.06
9	CUF101	6.16	2.48	44	4.58	2.14	44	7.18	2.68	50	6.01	2.45	47	9.03
	UC-2693	6.57	2.56	53	4.65	2.16	46	6.84	2.61	47	5.98	2.44	46	8.97
8	Pierce	6.26	2.50	47	4.81	2.19	47	6.15	2.48	40	5.72	2.39	45	8.60
9	Cibola	5.84	2.42	38	4.63	2.15	45	6.77	2.60	46	5.71	2.39	44	8.59
8	GrandSlam	6.31	2.51	48	4.12	2.03	41	6.60	2.57	45	5.62	2.37	43	8.44
9	AL999	6.37	2.52	49	4.12	2.03	42	6.33	2.52	43	5.55	2.36	42	8.34
	58N57 CY0890	5.86	2.42	39	4.09	2.02	40	6.24	2.50	41	5.35	2.31	41	8.04
7	Arriba II	5.97	2.44	40	3.98	2.00	39	6.25	2.50	42	5.35	2.31	40	8.03
	58N57 C97PA553	6.08	2.47	43	4.15	2.04	43	5.32	2.31	34	5.15	2.27	39	7.73
7	Artesian Sunrise	6.01	2.45	42	3.62	1.90	35	5.62	2.37	37	5.02	2.24	38	7.52
9	La Jolla	5.38	2.32	35	3.94	1.98	38	5.45	2.33	36	4.89	2.21	37	7.32
7	Dona Ana	4.82	2.19	32	3.78	1.94	36	6.13	2.48	39	4.86	2.20	36	7.26
6	TruTest	4.65	2.16	27	3.80	1.95	37	5.65	2.38	38	4.67	2.16	35	6.95
4	MasterPiece II	5.38	2.32	36	3.47	1.86	34	4.34	2.08	31	4.36	2.09	34	6.44
5	Minerva	5.57	2.36	37	2.97	1.72	30	4.69	2.17	32	4.34	2.08	33	6.39
6	ABI 700	4.65	2.16	28	3.09	1.76	32	5.33	2.31	35	4.31	2.08	32	6.34
6	Sutter	5.00	2.24	34	2.87	1.69	28	4.92	2.22	33	4.20	2.05	31	6.15
5	Archer	4.00	2.00	11	2.96	1.72	29	4.11	2.03	29	3.75	1.94	30	5.35
5	Dura 512	4.78	2.19	30	2.55	1.60	21	3.69	1.92	27	3.61	1.90	29	5.09
4	DG4210	4.80	2.19	31	2.42	1.56	19	3.68	1.92	26	3.57	1.89	28	5.01
4	Xtra-3	4.22	2.05	19	2.78	1.67	26	3.52	1.87	24	3.52	1.88	27	4.91
4	AmeriStand407TQ	4.49	2.12	26	2.72	1.65	25	3.45	1.86	22	3.51	1.87	26	4.91
5	Mounatineer II	4.08	2.02	14	2.31	1.52	16	4.16	2.04	30	3.46	1.86	25	4.80
4	Lightening IV	4.88	2.21	33	2.29	1.51	15	2.91	1.71	10	3.37	1.84	24	4.63
4	MS Sunstra 803	4.25	2.06	20	2.50	1.58	20	3.40	1.84	21	3.34	1.83	23	4.58
	NY0651	4.20	2.05	18	2.33	1.53	18	3.54	1.88	25	3.31	1.82	22	4.52
	NY1010	3.98	2.00	10	2.82	1.68	27	3.15	1.78	17	3.30	1.82	21	4.50
4	Grandstand	4.10	2.02	16	3.04	1.74	31	2.82	1.68	7	3.30	1.82	20	4.49
4	HybridForce 2400	3.94	1.99	8	3.21	1.79	33	2.79	1.67	5	3.30	1.82	19	4.49
5	WL 363 HQ	4.46	2.11	25	2.56	1.60	22	2.95	1.72	11	3.30	1.82	18	4.49
8	Dura 843	4.03	2.01	12	2.25	1.50	13	3.45	1.86	23	3.28	1.81	17	4.46
4	Syngenta 6422Q-EMD	4.70	2.17	29	2.12	1.46	10	3.19	1.79	20	3.25	1.80	16	4.40
5	Archer III	4.42	2.10	24	2.31	1.52	17	3.17	1.78	18	3.24	1.80	15	4.38
4	Integra 8400	4.37	2.09	21	2.21	1.49	12	3.02	1.74	14	3.24	1.80	14	4.38
5	WL 357 HQ	4.39	2.10	22	2.26	1.50	14	3.03	1.74	15	3.23	1.80	13	4.36
	NY0465	3.68	1.92	5	2.15	1.46	11	3.99	2.00	28	3.22	1.79	12	4.33
4	Syngenta 6422Q	4.08	2.02	15	2.68	1.64	24	2.90	1.70	9	3.20	1.79	11	4.29
4	Rebound 6.0	3.90	1.98	7	2.60	1.61	23	2.80	1.67	6	3.08	1.75	10	4.05
	NY0334	4.06	2.02	13	1.84	1.36	5	2.99	1.73	13	2.97	1.72	9	3.83
4	PGI 459	3.97	1.99	9	2.02	1.42	8	3.05	1.75	16	2.96	1.72	8	3.81
	NY0553	4.40	2.10	23	1.62	1.27	3	3.17	1.78	19	2.95	1.72	7	3.79
3	Integra 8300	3.81	1.95	6	2.07	1.44	9	2.83	1.68	8	2.86	1.69	6	3.60
3	Legend	4.16	2.04	17	1.91	1.38	6	2.67	1.63	4	2.84	1.69	5	3.56
2	5246	3.50	1.87	4	1.94	1.39	7	2.97	1.72	12	2.76	1.66	4	3.40
3	Rugged	2.83	1.68	3	1.66	1.29	4	1.94	1.39	2	2.12	1.45	3	1.91
2	Vernal	2.25	1.50	2	1.50	1.22	1	2.48	1.57	3	2.05	1.43	2	1.76
1	Maverick	1.70	1.30	1	1.56	1.25	2	1.65	1.28	1	1.63	1.28	1	0.65

LSD_{0.05}⁵

0.16

0.08

0.13

CV(%)

13.47

18.43

21.46

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

²Location: Planted-cut-scored: Tulelake 5/10-9/7-9/30; Davis 6/8-10/5-10/26; Imperial 5/31-10/20-11/23/2011

³Plant Height Score is transformed into Natural Plant Height (NPH) using square root to remove heterogeneity of variance

⁴Suggested single year fall dormancy rating based on three location single year regression (FDR=7.1323(NPH)-8.4622)

⁵Fishers 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