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2006 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 2006. Both conventional and Roundup-Ready (RR) lines have been tested. Yield trials were conducted in 6 regions in California: the Intermountain area, Scott Valley, the Sacramento Valley, the San Joaquin Valley, the Lancaster area (high desert), and the Imperial Valley (low desert, Figure 1). The alfalfa variety trial data from the University of California are routinely placed on the World Wide Web; often well in advance of this published report (<http://alfalfa.ucdavis.edu/>).

INTRODUCTION

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 varieties) in the Northern Central Valley, and 7-8 cut

California Alfalfa Acreages by Section

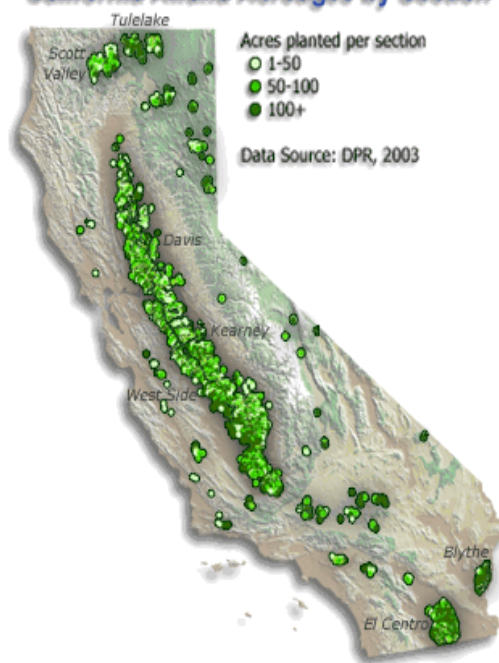


Figure 1. California alfalfa acreage. The Intermountain region is represented by Tulelake and Scott Valley, Sacramento Valley by the Davis trial, San Joaquin Valley by the Kearney Trial, high desert by the Lancaster (LA County) trial, and Low Desert by the El Centro trial.

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systems (semi-dormant to non-dormant varieties) in the Southern Central Valley and 8-11 cut systems (non-dormant varieties) in the Low Desert Environment in the south.

Choosing superior varieties of alfalfa is a significant economic factor for alfalfa growers. A large number of commercial varieties are currently available, enabling a wide range of options for producers. 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.

2006 ALFALFA PRODUCTION YEAR

The 2006 production season was generally characterized by very wet (and damaging) conditions early in the season, followed by searing hot record high temperatures during July. The remainder of the season (August-September) were normal to milder than typical. Winter rainfall continued much later into the spring months causing delays in first cuts in April and May. Fields in the Sacramento Valley and San Joaquin Valley were damaged significantly, with yellow foliage, stressed plants, and damaged root systems. This was followed by seasonal temperatures in June, followed by record heat in July, where temperature records were broken in Sacramento, Fresno, Visalia and other Central Valley locations. The hot summer stress was made worse by the extensive root damage that had occurred during the spring period. The moderate and dry fall months allowed for excellent late production (high yields and high quality) for many growers in the Central Valley, to some degree offsetting the many rained-on and poor-quality lots that were produced earlier. Quite a number of growers obtained one less cutting in comparison to other years due to the delays in production. Prices in 2006 were lower than 2005, but still above a 10-year average. Higher costs of production occurred in 2006, particularly fuel and electricity for pumping. Research plots in Davis and Kearney had the first cutting in late April. Currently, hay stocks are down, demand is high, and thus hay prices appear to continue to be moderate to increasing, a condition which is expected to continue into 2007. New plantings of alfalfa will undoubtedly impact the price, depending upon magnitude.

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, Scott Valley, Davis (2 trials), Parlier, Lancaster and El Centro, CA in 2006.

Three new trials (UC Davis, Lancaster and El Centro) were established in the fall of 2005 and one (Scott Valley) in spring of 2006. 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 15 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 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.

2006 YIELD RESULTS

Intermountain Region

2004 UC Tulelake Yield Trial – The 2006 season was relatively normal in rainfall and temperature. This trial was planted with 36 entries May 21, 2004 at the UC Intermountain Research and Extension Center, Tulelake, CA. Single year results from four 2006 harvests are provided in Table 1 and the over-the-years data provided in Table 2. In 2006, yield average was 8.85 tons/acre, which was slightly higher than the yield averages in 2005. About 1.4 tons/acre difference between the highest and lowest yield average of varieties was found in 2006, but this difference was about 0.9 t/a when averaged across three years. Some shifting of varieties from year 1 to 2 was observed, but a smaller amount of shifting of rank from year 2 to year 3 was found.

2006 UC Scott Valley Trial – A new trial was established with 32 entries May, 2006 on a grower's field in Scott Valley, CA, near Ft. Jones, CA, and harvesting began in August of 2006 (Table 3). Yield differences from two harvests from highest to lowest-yielding variety were approximately 1.6 tons/acre (Table 3). However, variability was somewhat high due to drought stress in some replications. NOTE: It is a misuse of University data to choose alfalfa varieties based upon a single year trial.

Sacramento Valley

2005 UC Davis Yield Trial – A new trial was established September 28, 2005 with 45 entries at the UC Davis Agronomy Research Farm. Seven cuttings were conducted during the season with the first cutting taking place on May 1, 2006. The yield across all varieties was about 11.6 tons/acre (Table 4). The yearly yield average between high and low varieties was greater than 2.7 tons/acre difference, and CVs were low, indicating good control of variation in this trial. NOTE: It is a misuse of University data to choose alfalfa varieties based upon a single year trial.

2003 UC Davis Roundup-Ready Trial - The third year yield results of a roundup ready (RR) trial grown at UC Davis campus is presented in Table 5, and the over-the-years summary provided in Table 6. This trial includes several that have been commercialized in 2006. These lines have been developed by Forage Genetics International, and compared with 'check varieties'. These plots were grown under regulation until de-regulation in June 2005. In general, yields of RR varieties for the 3rd year of this trial were no different than the yields of non-RR check varieties within the same dormancy group (Table 5). Differences in yield potential as related to Fall Dormancy Rating of those varieties were observed, but this was independent of whether the variety was RR or not (Table 5). The difference between high and low yield entries was only 2.3 tons/acre, while the FD ranges were from 3-9. The average yields fell 1.6 tons/acre from 2005 to 2006 years (Table 6), and show a typical yield decline from years 1 through 3. The Fall Dormancy scores reported are those estimated by the company, not those measured in independent tests.

2006 UC Davis RR and Conventional Trial – A new trial was established Fall, 2006 to include a block of Roundup-Ready alfalfa varieties and a block of conventional varieties, grown under conventional herbicides and Roundup-treated herbicides. We will report on this trial in 2007.

San Joaquin Valley

2005 UC Kearney Yield Trial -- This is the 2nd year of this trial, which was established on March 15, 2005 and has 54 entries at UC Kearney Research Center in Parlier, CA. Single-year data is provided in Table 7 and over-the-years data provided in Table 8. Seven cuttings were made during the season in 2006 with the first cutting taking place on May 1. The yield across all varieties was about 13.9 tons/acre, nearly 4 tons/acre greater than 2005 (the seedling year). Yields averaged over the two years were 11.9 tons/acre (Table 8). The yearly yield average between high and low varieties was about 2.8 tons/acre difference averaged over the two years (Table 8).

2006 UC West Side yield Trial – A new trial was planted fall, 2006 at the West Side Field Station in Five Points, CA. This will be harvested in 2007.

High Desert

2005 Lancaster Trial – A new trial was planted September 22, 2005 on a grower's field near Lancaster, CA, with 30 entries with Fall Dormancy ranging from 4 through 8. The high deserts of California are characterized by very low rainfall, but cold and sometimes snowy winter

conditions. First year results are provided in Table 9. This trial was quite variable during the first year of production, with C.V.s ranging from 11% to 18% over the 5 cuttings, and the yearly sum comparisons showed no significant difference between alfalfa varieties (Table 9). NOTE: It is a misuse of University data to choose alfalfa varieties based upon a single year trial.

Low Desert

2003 UC Imperial Yield Trial – This trial was planted with 28 entries October 30, 2005 at the UC Desert Research and Extension Center, El Centro. The first production year data is provided in Table 10. Nine cuttings were conducted during the season with the first cutting taking place on March 16, 2006. NOTE: It is a misuse of University data to choose alfalfa varieties based upon a single year 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. Order a copy or view on the web the current information on Fall Dormancy and Pest resistance 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. Last consideration is the price of seed or other factors.

ACKNOWLEDGMENTS

The authors are grateful for the help of Chuck Boldwyn, Dale Pattigan, Dan Mulligan and crews for help with the field plots at UC Kearney Ag Center, and Dave Gall and Jim Jackson for help on the Davis plots.

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TABLE 1. 2006 YIELDS, UC TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 5/21/04

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	5-Jun	11-Jul	11-Aug	13-Sep	TOTAL	VERNAL	%	
		Dry t/a							
Released Varieties									
Xtra-3	4	3.1 (5)	2.8 (1)	2.0 (12)	1.5 (8)	9.4 (1)	A	111.2	
Rebound 5.0	4	3.0 (12)	2.7 (2)	2.1 (3)	1.5 (11)	9.3 (2)	A B	110.7	
WL357HQ	5	3.0 (14)	2.7 (3)	2.1 (5)	1.5 (13)	9.2 (3)	A B C	109.3	
Alfa Star II	4	3.0 (8)	2.6 (6)	2.0 (13)	1.5 (14)	9.2 (4)	A B C D	109.1	
WL325HQ	4	3.1 (6)	2.6 (16)	2.0 (10)	1.5 (18)	9.2 (5)	A B C D	108.8	
C 316 Lot9078	4	3.2 (2)	2.6 (15)	1.9 (21)	1.5 (24)	9.1 (6)	A B C D E	108.7	
Vitro	3	3.2 (1)	2.7 (5)	1.8 (31)	1.4 (32)	9.1 (7)	A B C D E F	108.6	
MasterPiece	4	3.0 (13)	2.6 (13)	2.1 (4)	1.5 (21)	9.1 (8)	A B C D E F	108.6	
DS309Hyb	4	2.9 (17)	2.6 (11)	2.0 (14)	1.6 (1)	9.1 (9)	A B C D E F	108.6	
Expedition	5	2.9 (19)	2.7 (4)	2.0 (8)	1.5 (20)	9.1 (10)	A B C D E F G	107.7	
WL319HQ	3	3.1 (7)	2.6 (10)	1.9 (19)	1.4 (30)	9.0 (11)	A B C D E F G H	107.4	
LegenDairy 5.0	3	3.0 (11)	2.6 (17)	2.0 (11)	1.5 (28)	9.0 (12)	A B C D E F G H I	107.1	
54Q25	4	3.2 (3)	2.5 (21)	1.8 (30)	1.4 (33)	9.0 (15)	A B C D E F G H I J	106.6	
9429	4	3.1 (4)	2.5 (29)	1.8 (32)	1.5 (25)	8.9 (16)	A B C D E F G H I J K	106.0	
Mountaineer 2.0 (4M124)	5	2.9 (23)	2.6 (9)	2.0 (18)	1.5 (23)	8.9 (17)	B C D E F G H I J K	105.9	
Boulder (4M125)	5	2.8 (27)	2.6 (14)	2.0 (9)	1.5 (19)	8.9 (18)	B C D E F G H I J K	105.5	
Dura 512	5	2.9 (18)	2.6 (8)	1.8 (33)	1.5 (15)	8.9 (19)	C D E F G H I J K	105.3	
Recover	5	2.7 (30)	2.6 (7)	2.0 (17)	1.5 (7)	8.9 (20)	C D E F G H I J K	105.2	
Reward II	4	3.0 (10)	2.5 (27)	1.9 (26)	1.5 (27)	8.8 (21)	C D E F G H I J K L	105.0	
Hybriforce-420/Wet	4	2.9 (24)	2.5 (28)	1.9 (20)	1.5 (10)	8.8 (22)	C D E F G H I J K L M	104.7	
CW5440	4	2.8 (25)	2.6 (12)	1.9 (22)	1.4 (34)	8.7 (24)	E F G H I J K L M N	103.5	
DS218	6	2.8 (26)	2.6 (19)	1.9 (24)	1.5 (22)	8.7 (25)	F G H I J K L M N	103.5	
Blazer XL	3	2.9 (22)	2.5 (25)	1.8 (28)	1.5 (26)	8.7 (26)	G H I J K L M N	103.3	
LM 459 WD	5	2.7 (31)	2.5 (24)	1.9 (23)	1.6 (4)	8.7 (27)	G H I J K L M N	102.9	
Magna601	6	2.6 (32)	2.5 (23)	1.9 (25)	1.6 (2)	8.6 (29)	H I J K L M N	102.4	
Plumas	4	2.9 (16)	2.5 (34)	1.8 (34)	1.4 (31)	8.6 (30)	I J K L M N	102.1	
SW435(SW4A135)	4	2.7 (28)	2.5 (30)	1.9 (27)	1.4 (29)	8.5 (32)	K L M N	101.4	
Vernal	2	2.9 (21)	2.5 (22)	1.7 (36)	1.3 (35)	8.4 (33)	L M N O	100.0	
Innovator +Z	3	3.0 (9)	2.3 (35)	1.7 (35)	1.3 (36)	8.4 (35)	N O	99.3	
Experimental Varieties									
CW94023	4	2.9 (15)	2.6 (18)	2.0 (16)	1.5 (12)	9.0 (13)	A B C D E F G H I J	106.7	
CW05009	5	2.9 (20)	2.5 (32)	2.1 (2)	1.5 (16)	9.0 (14)	A B C D E F G H I J	106.6	
SW5307	5	2.6 (33)	2.5 (20)	2.0 (7)	1.6 (5)	8.8 (23)	D E F G H I J K L M N	104.0	
SW4328	4	2.6 (34)	2.5 (26)	2.1 (6)	1.5 (9)	8.7 (28)	G H I J K L M N	102.9	
SW5329	5	2.7 (29)	2.5 (31)	1.8 (29)	1.5 (17)	8.5 (31)	J K L M N	101.6	
SW4310	4	2.4 (35)	2.5 (33)	2.0 (15)	1.6 (3)	8.4 (34)	M N O	99.7	
SW6330	6	2.1 (36)	2.3 (36)	2.1 (1)	1.6 (6)	8.0 (36)	O	95.4	
MEAN		2.87	2.56	1.94	1.49	8.85			
CV		6.4	6.0	10.1	6.6	4.6			
LSD (0.1)		0.20	0.16	0.21	0.11	0.44			

Trial seeded at 25 lb/acre viable seed at UC 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. 2004-2006 YIELDS. UC TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 5/21/04

		2004	2005	2006	Average		% of
	FD	Yield	Yield	Yield			Vernal
			Dry t/a				%
Released Varieties							
Xtra-3	4	5.1 (23)	9.2 (1)	9.4 (1)	7.9 (1)	A	112.2
Rebound 5.0	4	5.2 (16)	8.9 (7)	9.3 (2)	7.8 (2)	A B	111.3
Expedition	5	5.3 (6)	9.1 (2)	9.1 (10)	7.8 (3)	A B	111.3
WL325HQ	4	5.3 (7)	9.0 (5)	9.2 (5)	7.8 (4)	A B C	111.0
Alfa Star II	4	5.2 (18)	8.9 (8)	9.2 (4)	7.8 (5)	A B C	110.5
Mountaineer 2.0 (4M124)	5	5.4 (1)	8.8 (13)	8.9 (17)	7.7 (6)	A B C D	110.0
DS309Hyb	4	5.2 (10)	8.8 (16)	9.1 (9)	7.7 (8)	A B C D E	109.8
MasterPiece	4	5.2 (12)	8.8 (15)	9.1 (8)	7.7 (9)	A B C D E	109.8
WL357HQ	5	4.9 (30)	8.9 (6)	9.2 (3)	7.7 (10)	A B C D E F	109.6
C 316 Lot9078	4	4.9 (31)	9.0 (4)	9.1 (6)	7.7 (11)	A B C D E F	109.4
Vitro	3	5.2 (13)	8.7 (17)	9.1 (7)	7.7 (12)	A B C D E F G	109.2
WL319HQ	3	5.1 (25)	8.9 (9)	9.0 (11)	7.7 (13)	A B C D E F G	109.2
Recover	5	5.2 (9)	8.8 (12)	8.9 (20)	7.6 (14)	A B C D E F G H	108.8
Boulder (4M125)	5	5.0 (27)	8.9 (10)	8.9 (18)	7.6 (16)	B C D E F G H I	108.1
LegenDairy 5.0	3	4.9 (32)	8.9 (11)	9.0 (12)	7.6 (17)	B C D E F G H I J	108.0
Hybriforce-420/Wet	4	5.2 (15)	8.6 (18)	8.8 (22)	7.6 (18)	B C D E F G H I J K	107.5
54Q25	4	5.1 (21)	8.5 (21)	9.0 (15)	7.5 (19)	C D E F G H I J K	107.3
Dura 512	5	5.0 (29)	8.6 (19)	8.9 (19)	7.5 (20)	D E F G H I J K	106.6
DS218	6	5.2 (14)	8.5 (22)	8.7 (25)	7.5 (21)	D E F G H I J K	106.4
Magna601	6	5.3 (5)	8.4 (26)	8.6 (29)	7.4 (23)	E F G H I J K	106.0
SW435(SW4A135)	4	5.2 (17)	8.6 (20)	8.5 (32)	7.4 (24)	F G H I J K L	105.9
LM 459 WD	5	5.1 (20)	8.4 (24)	8.7 (27)	7.4 (25)	G H I J K L	105.5
Reward II	4	5.0 (26)	8.3 (27)	8.8 (21)	7.4 (27)	G H I J K L M	105.4
CW5440	4	5.1 (24)	8.4 (25)	8.7 (24)	7.4 (28)	H I J K L M	105.3
Blazer XL	3	5.0 (28)	8.3 (28)	8.7 (26)	7.3 (29)	I J K L M	104.5
9429	4	4.8 (34)	8.3 (30)	8.9 (16)	7.3 (30)	I J K L M	104.2
Plumas	4	4.8 (33)	8.1 (33)	8.6 (30)	7.2 (33)	L M N	102.1
Innovator +Z	3	4.8 (35)	8.3 (29)	8.4 (35)	7.1 (34)	M N	101.6
Vernal	2	4.7 (36)	8.0 (35)	8.4 (33)	7.0 (36)	N	100.0
Experimental Varieties							
CW94023	4	5.2 (19)	9.0 (3)	9.0 (13)	7.7 (7)	A B C D E	109.8
CW05009	5	5.1 (22)	8.8 (14)	9.0 (14)	7.6 (15)	A B C D E F G H	108.5
SW5307	5	5.4 (2)	8.2 (31)	8.8 (23)	7.5 (22)	E F G H I J K	106.1
SW5329	5	5.2 (11)	8.4 (23)	8.5 (31)	7.4 (26)	G H I J K L M	105.4
SW4328	4	5.2 (8)	8.0 (34)	8.7 (28)	7.3 (31)	J K L M	104.2
SW4310	4	5.4 (3)	8.1 (32)	8.4 (34)	7.3 (32)	K L M N	103.7
SW6330	6	5.3 (4)	7.8 (36)	8.0 (36)	7.0 (35)	N	100.2
MEAN		5.12	8.59	8.85	7.52		
CV		5.4	4.9	4.6	3.4		
LSD (0.1)		0.29	0.45	0.44	0.27		

Trial seeded at 25 lb/acre viable seed at UC 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. 2006 YIELDS, UC SCOTT VALLEY ALFALFA CUTIVAR TRIAL. TRIAL PLANTED 5/04/2006

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

		Cut 1	Cut 2	YEAR		% of
		1-Aug	26-Sep	TOTAL		VERNAL
	FD		Dry t/a			%
WL 357HQ	5	2.7 (1)	2.6 (1)	5.3 (1)	A	127.1
Xtra-3	4	2.6 (2)	2.5 (2)	5.1 (2)	AB	122.7
DS417	4	2.6 (3)	2.4 (3)	5.0 (3)	ABC	119.7
HybriForce420/wet	4	2.4 (4)	2.3 (7)	4.8 (4)	BCD	113.6
HybriForce620	6	2.4 (6)	2.4 (4)	4.7 (5)	BCD	113.3
Mountaineer 2.0	5	2.4 (5)	2.2 (10)	4.6 (6)	CDE	110.4
Dura 512	5	2.3 (16)	2.3 (5)	4.6 (7)	CDE	110.2
CW 500	5	2.2 (19)	2.3 (6)	4.6 (8)	CDEF	109.4
Mariner III	4	2.3 (13)	2.2 (12)	4.5 (9)	CDEF	108.7
WL 355RR	4	2.3 (15)	2.3 (9)	4.5 (10)	CDEF	108.5
PGI 424	4	2.3 (10)	2.2 (15)	4.5 (11)	DEF	107.7
MasterPiece	4	2.2 (21)	2.3 (8)	4.5 (12)	DEF	107.6
Rebound 5.0	4	2.3 (17)	2.2 (17)	4.4 (13)	DEF	106.3
Power 4.2	4	2.3 (8)	2.1 (19)	4.4 (14)	DEF	106.1
FSG 408DP	4	2.3 (18)	2.2 (16)	4.4 (15)	DEF	106.0
HB8400	4	2.2 (20)	2.2 (14)	4.4 (16)	DEF	105.8
Masterpiece	4	2.2 (24)	2.2 (13)	4.4 (17)	DEF	105.5
FSG 505	5	2.3 (9)	2.1 (21)	4.4 (18)	DEFG	105.2
WL 325HQ	4	2.3 (11)	2.1 (22)	4.4 (19)	DEFG	105.0
PGI 459	4	2.3 (12)	2.1 (23)	4.4 (20)	DEFG	104.8
Whitney	4	2.1 (28)	2.2 (11)	4.4 (21)	DEFG	104.8
Boulder	5	2.3 (7)	2.0 (26)	4.3 (23)	DEFGH	103.6
Expedition	5	2.3 (14)	2.0 (28)	4.3 (24)	DEFGH	102.0
DKA50-18	5	2.2 (27)	2.1 (20)	4.2 (25)	EFGH	101.3
AmeriStand 407TQ	4	2.2 (22)	2.0 (25)	4.2 (26)	EFGH	101.0
Vernal	2	2.1 (29)	2.0 (24)	4.2 (27)	EFGHI	100.0
WL 319HQ	3	2.2 (23)	2.0 (27)	4.2 (28)	EFGHI	100.0
DKA41-18RR	4	2.2 (25)	1.9 (29)	4.1 (29)	FGHI	97.9
GrandStand	4	2.1 (30)	1.8 (31)	3.9 (30)	GHI	93.7
RRALF 4R200	4	2.0 (31)	1.8 (30)	3.8 (31)	HI	91.8
WL 343HQ	4	2.0 (32)	1.7 (32)	3.7 (32)	I	88.9
MEAN		2.28	2.15	4.44		
CV		12.0	12.2	10.4		
LSD (0.1)		0.29	0.28	0.49		

Trial seeded at 25 lb/acre viable seed at Scott Valley, 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. 2006 YIELDS, UC DAVIS ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/28/05

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

	FD	Dry t/a							YEAR TOTAL	% of CUF101	% %
		Cut 1 1-May	Cut 2 25-May	Cut 3 20-Jun	Cut 4 20-Jul	Cut 5 17-Aug	Cut 6 18-Sep	Cut 7 23-Oct			
Released Varieties											
Wildcard	8	2.5 (4)	1.6 (26)	1.6 (6)	2.3 (4)	1.9 (2)	1.7 (2)	1.3 (2)	12.8 (1)	A	108.3
Conquistador	8	2.4 (9)	1.7 (20)	1.6 (14)	2.3 (2)	1.8 (17)	1.6 (9)	1.3 (4)	12.5 (3)	ABC	105.9
Artisan Sunrise	7	2.3 (11)	1.7 (10)	1.4 (39)	2.3 (3)	1.8 (14)	1.6 (14)	1.2 (9)	12.3 (6)	ABCDEF	103.8
HybriForce-620	6	2.4 (8)	1.7 (15)	1.6 (4)	2.2 (13)	1.8 (10)	1.5 (20)	1.1 (20)	12.2 (9)	BCDEF	103.3
Yosemite	8	2.2 (16)	1.7 (21)	1.5 (22)	2.2 (16)	1.8 (20)	1.6 (7)	1.2 (5)	12.2 (10)	BCDEF	103.0
Magna 788	8	2.4 (6)	1.7 (11)	1.6 (9)	2.1 (24)	1.7 (30)	1.6 (11)	1.2 (11)	12.2 (11)	BCDEF	102.9
WL530HQ	8	2.2 (21)	1.7 (22)	1.5 (24)	2.2 (11)	1.9 (3)	1.6 (10)	1.1 (14)	12.2 (12)	BCDEF	102.9
56S82	6	2.4 (7)	1.8 (2)	1.5 (21)	2.0 (32)	1.8 (23)	1.5 (26)	1.1 (14)	12.0 (17)	CDEFG	101.7
DKA84-10RR	8.4	2.0 (41)	1.7 (13)	1.5 (18)	2.2 (15)	1.8 (16)	1.6 (5)	1.3 (3)	12.0 (18)	CDEFG	101.6
CUF101	9	2.2 (19)	1.5 (42)	1.5 (17)	2.1 (26)	1.8 (7)	1.6 (6)	1.0 (27)	11.8 (24)	EFGHI	100.0
57Q75	7	2.3 (13)	1.7 (5)	1.6 (13)	1.8 (43)	1.9 (1)	1.6 (14)	0.9 (37)	11.8 (25)	FGHIJ	99.4
Dura 843	8	2.1 (31)	1.7 (17)	1.5 (16)	2.2 (12)	1.8 (24)	1.5 (25)	1.1 (23)	11.8 (26)	FGHIJ	99.2
WL535HQ	8	2.1 (31)	1.6 (33)	1.5 (25)	2.1 (22)	1.7 (33)	1.6 (8)	1.2 (10)	11.7 (27)	FGHIJK	99.0
Sutter	7	2.0 (36)	1.7 (16)	1.4 (36)	2.0 (34)	1.8 (22)	1.4 (31)	1.0 (31)	11.2 (32)	JKL	94.9
DKA50-18	5	2.0 (40)	1.6 (30)	1.4 (33)	2.1 (29)	1.7 (26)	1.4 (33)	1.0 (28)	11.2 (33)	JKLM	94.7
Owyhee	6	2.0 (39)	1.6 (37)	1.4 (32)	2.1 (19)	1.7 (29)	1.3 (34)	1.0 (32)	11.2 (34)	JKLM	94.6
Mountaineer 2.0	5	2.2 (23)	1.7 (8)	1.4 (38)	2.0 (35)	1.7 (32)	1.3 (39)	0.9 (35)	11.2 (35)	KLMN	94.2
DKA41-18RR	4.1	1.9 (42)	1.4 (45)	1.4 (37)	2.2 (14)	1.5 (41)	1.3 (38)	0.9 (38)	10.7 (37)	MNOP	89.9
Lahanton	5	2.0 (38)	1.6 (30)	1.3 (45)	1.9 (37)	1.6 (38)	1.3 (37)	0.8 (43)	10.6 (39)	NOP	89.6
WL357HQ	5	1.9 (43)	1.5 (44)	1.4 (35)	2.0 (36)	1.6 (39)	1.3 (35)	0.8 (41)	10.5 (40)	OP	88.8
DKA33-16	3	2.1 (27)	1.6 (23)	1.4 (34)	1.9 (38)	1.4 (44)	1.1 (45)	0.8 (45)	10.5 (41)	OP	88.5
Dura 512	5	2.2 (17)	1.6 (40)	1.4 (40)	1.9 (42)	1.5 (43)	1.2 (43)	0.8 (44)	10.5 (42)	OP	88.4
DKA42-15	4	2.0 (34)	1.6 (41)	1.4 (42)	1.8 (44)	1.5 (40)	1.2 (41)	0.9 (39)	10.4 (43)	OP	88.0
CW95026	5	2.0 (35)	1.7 (12)	1.4 (41)	1.8 (45)	1.4 (45)	1.1 (44)	0.8 (40)	10.3 (44)	P	86.9
DKA34-17RR	3.4	1.6 (45)	1.6 (37)	1.3 (43)	1.9 (40)	1.5 (42)	1.2 (42)	0.9 (34)	10.1 (45)	P	85.4
Experimental Varieties											
DS588-Hyb	8	2.4 (10)	1.8 (3)	1.6 (10)	2.3 (7)	1.9 (4)	1.6 (13)	1.2 (6)	12.6 (2)	AB	106.6
SW9332	9	2.0 (37)	1.6 (29)	1.5 (20)	2.4 (1)	1.9 (5)	1.7 (4)	1.4 (1)	12.4 (4)	ABCD	105.1
CW36077	6	2.3 (12)	1.8 (4)	1.6 (2)	2.3 (8)	1.8 (12)	1.5 (18)	1.1 (18)	12.4 (5)	ABCDE	104.5
DS589-Hyb+Optimize	8	2.2 (24)	1.7 (5)	1.6 (7)	2.3 (5)	1.6 (34)	1.7 (3)	1.2 (8)	12.3 (7)	ABCDEF	103.6
DS566-Hyb+Optimize	6	2.5 (2)	1.6 (36)	1.6 (10)	2.2 (9)	1.8 (13)	1.4 (27)	1.1 (21)	12.3 (8)	ABCDEF	103.5
DS566-Hyb	6	2.5 (5)	1.7 (19)	1.6 (12)	2.2 (17)	1.8 (11)	1.4 (29)	1.1 (17)	12.2 (13)	BCDEF	102.9
SW6330	6	2.6 (1)	1.7 (9)	1.5 (27)	2.1 (23)	1.8 (15)	1.5 (19)	1.0 (26)	12.2 (14)	BCDEF	102.8
DS583-Hyb	8	2.3 (14)	1.6 (28)	1.6 (3)	2.3 (6)	1.8 (9)	1.5 (21)	1.1 (19)	12.1 (15)	BCDEF	102.5
DS584-Hyb	8	2.2 (18)	1.8 (1)	1.6 (8)	2.1 (20)	1.8 (19)	1.5 (17)	1.0 (24)	12.1 (16)	BCDEFG	101.8
SW9434	9	2.1 (30)	1.6 (39)	1.5 (15)	2.2 (10)	1.9 (6)	1.7 (1)	1.0 (29)	12.0 (19)	CDEFG	101.5
DS589-Hyb	8	2.2 (21)	1.6 (25)	1.6 (5)	2.1 (25)	1.8 (8)	1.6 (12)	1.1 (22)	12.0 (20)	CDEFG	101.2
DS587-Hyb	8	2.5 (3)	1.7 (14)	1.6 (1)	1.9 (41)	1.6 (36)	1.5 (23)	1.1 (13)	11.9 (21)	DEFGH	100.8
CW17075+Optimize	7	2.1 (33)	1.7 (18)	1.5 (23)	2.1 (18)	1.8 (25)	1.5 (16)	1.2 (7)	11.9 (22)	DEFGHI	100.4
CW25034	5	2.2 (15)	1.6 (27)	1.5 (26)	2.1 (21)	1.8 (18)	1.5 (22)	1.1 (12)	11.9 (23)	DEFGHI	100.3
CW17075	7	2.2 (20)	1.7 (7)	1.5 (28)	2.0 (33)	1.7 (31)	1.5 (24)	1.0 (33)	11.5 (28)	GHIJK	97.3
SW5310	5	2.1 (26)	1.6 (24)	1.5 (19)	2.0 (30)	1.7 (27)	1.4 (32)	1.0 (25)	11.5 (29)	GHIJK	97.0
CW25006	5	2.2 (25)	1.5 (43)	1.5 (29)	2.1 (27)	1.6 (35)	1.4 (28)	1.1 (16)	11.4 (30)	HIJKL	95.9
SW5407	5	2.1 (28)	1.6 (35)	1.5 (31)	2.0 (30)	1.8 (21)	1.4 (30)	1.0 (30)	11.4 (31)	IJKL	95.9
CW94008+Optimize	4	2.1 (29)	1.6 (34)	1.5 (30)	1.9 (39)	1.6 (37)	1.3 (36)	0.9 (36)	10.9 (36)	LMNO	92.0
CW94008	4	1.8 (44)	1.6 (32)	1.3 (44)	2.1 (28)	1.7 (28)	1.2 (40)	0.8 (42)	10.6 (38)	NOP	89.7
MEAN		2.18	1.65	1.49	2.10	1.73	1.45	1.04	11.64		
CV		10.9	8.3	6.7	9.3	7.5	5.1	11.2	4.2		
LSD (0.1)		0.28	NS	0.12	0.23	0.15	0.09	0.14	0.58		

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. 2006 YIELDS, UC DAVIS ALFALFA ROUNDUP READY TRIAL. TRIAL PLANTED 8/28/03

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	16-May	14-Jun	11-Jul	8-Aug	5-Sep	27-Oct	TOTAL		CUF101
		Dry t/a								%
Control Varieties										
Magna 801FQ	8	1.5 (2)	1.7 (3)	1.6 (1)	2.0 (4)	1.6 (1)	1.3 (3)	9.7 (1)	A	107.1
CUF101	9	1.1 (20)	1.4 (19)	1.6 (2)	2.1 (2)	1.6 (2)	1.3 (1)	9.1 (3)	ABC	100.0
WL525HQ	8	1.6 (1)	1.5 (14)	1.4 (11)	1.8 (16)	1.4 (6)	1.2 (8)	8.9 (7)	ABCD	98.1
SW7410	7	1.4 (7)	1.7 (2)	1.5 (5)	1.8 (13)	1.2 (12)	1.2 (13)	8.8 (8)	BCDE	97.3
Tango	6	1.2 (18)	1.5 (8)	1.5 (7)	2.0 (9)	1.3 (9)	1.2 (4)	8.7 (9)	BCDE	96.3
Sutter	7	1.5 (4)	1.4 (15)	1.3 (17)	2.0 (6)	1.2 (11)	0.9 (18)	8.3 (16)	CDEF	92.0
Parade	6	1.2 (19)	1.6 (6)	1.4 (12)	1.9 (12)	1.1 (18)	0.9 (16)	8.0 (18)	EF G	88.7
WL325HQ	3	1.4 (6)	1.4 (16)	1.3 (16)	1.6 (20)	1.0 (20)	0.9 (19)	7.6 (19)	F G	84.1
Roundup Ready® Varieties										
RR03BD-194	8	1.4 (10)	1.7 (1)	1.5 (6)	2.0 (5)	1.5 (3)	1.2 (10)	9.2 (2)	AB	102.0
RR03BD-196	7	1.4 (5)	1.6 (5)	1.6 (3)	1.8 (14)	1.4 (4)	1.2 (13)	9.0 (4)	ABC	99.5
REVOLUTION(RR03BD-181)	9	1.3 (11)	1.5 (9)	1.5 (4)	2.1 (3)	1.3 (8)	1.2 (12)	8.9 (5)	ABCD	98.8
RR03BD-176	8	1.3 (17)	1.6 (4)	1.5 (8)	2.1 (1)	1.3 (7)	1.2 (11)	8.9 (6)	ABCD	98.6
RRALF6R100(RR03BD-161)	6	1.3 (12)	1.6 (7)	1.4 (10)	2.0 (8)	1.3 (10)	1.1 (15)	8.7 (10)	BCDE	96.1
WL550RR(RR03BD-101)	8	1.3 (14)	1.4 (18)	1.3 (18)	2.0 (9)	1.4 (5)	1.2 (5)	8.6 (11)	BCDE	94.5
RR03BD-164	8	1.3 (14)	1.5 (12)	1.3 (13)	1.8 (15)	1.2 (15)	1.3 (2)	8.5 (12)	BCDE	93.4
RR03B-189	8	1.5 (3)	1.5 (13)	1.3 (15)	1.7 (18)	1.2 (13)	1.2 (9)	8.5 (13)	BCDEF	93.3
RR03B-182	8	1.4 (9)	1.4 (17)	1.3 (19)	1.9 (11)	1.2 (14)	1.2 (7)	8.4 (14)	BCDEF	93.0
RR03B-115	8	1.3 (13)	1.5 (10)	1.4 (9)	2.0 (7)	1.1 (16)	0.9 (17)	8.4 (15)	CDEF	92.4
DKA84-10RR(RR03BD-140)	8	1.4 (8)	1.4 (20)	1.3 (14)	1.8 (17)	1.0 (19)	1.2 (6)	8.2 (17)	DEFG	90.0
RR03BD-127	5	1.3 (16)	1.5 (11)	1.0 (20)	1.6 (19)	1.1 (17)	0.8 (20)	7.4 (20)	G	82.2
MEAN		1.36	1.52	1.39	1.91	1.27	1.14	8.59		
CV		11.0	8.5	12.3	14.3	18.5	25.2	7.9		
LSD (0.1)		0.18	0.16	0.21	NS	0.29	NS	0.83		

Trial seeded at 25 lb/acre viable seed on Yolo clay loam soil at the UC Davis Agronomy Farms, 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.

NOTE: It is a misuse of University data to choose alfalfa varieties based upon a single year trial.

TABLE 6. 2004-2006 YIELDS, UC DAVIS ALFALFA ROUNDUP READY TRIAL. TRIAL PLANTED 08/28/03

		2004	2005	2006	Average		% of
	FD	Yield	Yield	Yield			CUF101
		Dry t/a					%
Control Varieties							
Magna 801FQ	8	12.4 (2)	10.6 (6)	9.7 (1)	10.9 (1)	A	104.2
Tango	6	12.5 (1)	11.0 (2)	8.7 (9)	10.7 (2)	A	102.9
SW7410	7	12.0 (4)	11.1 (1)	8.8 (8)	10.6 (3)	AB	101.9
CUF101	9	11.8 (8)	10.5 (7)	9.1 (3)	10.4 (7)	ABCD	100.0
WL525HQ	8	11.1 (14)	9.8 (15)	8.9 (7)	9.9 (12)	BCDEFG	95.2
Parade	6	11.3 (12)	9.3 (17)	8.0 (18)	9.6 (17)	EF GH	91.6
Sutter	7	10.8 (17)	9.2 (18)	8.3 (16)	9.5 (18)	F GH	90.5
WL325HQ	3	10.2 (20)	9.2 (20)	7.6 (19)	9.0 (20)	H	86.1
Roundup Ready® Varieties							
REVOLUTION(RR03BD-181)	9	12.0 (3)	10.9 (4)	8.9 (5)	10.6 (4)	AB	101.8
RR03BD-194	8	11.8 (7)	10.6 (5)	9.2 (2)	10.6 (5)	AB	101.1
RR03BD-176	8	11.9 (5)	10.5 (8)	8.9 (6)	10.4 (6)	ABC	100.1
RR03BD-196	7	11.3 (13)	10.9 (3)	9.0 (4)	10.4 (8)	ABCD	99.6
RR03BD-164	8	11.8 (6)	10.3 (10)	8.5 (12)	10.2 (9)	ABCDE	97.8
WL550RR(RR03BD-101)	8	11.5 (10)	10.4 (9)	8.6 (11)	10.1 (10)	ABCDEF	97.2
RRALF6R100(RR03BD-161)	6	11.6 (9)	9.7 (16)	8.7 (10)	10.0 (11)	BCDEF	95.7
DKA84-10RR(RR03BD-140)	8	11.4 (11)	9.9 (13)	8.2 (17)	9.8 (13)	CDEFG	93.9
RR03B-115	8	11.0 (16)	10.0 (12)	8.4 (15)	9.8 (14)	CDEFG	93.7
RR03B-182	8	10.6 (18)	10.1 (11)	8.4 (14)	9.7 (15)	DEFGH	93.0
RR03B-189	8	10.5 (19)	9.8 (14)	8.5 (13)	9.6 (16)	EF GH	92.0
RR03BD-127	5	11.1 (15)	9.2 (19)	7.4 (20)	9.2 (19)	GH	88.5
MEAN		11.43	10.15	8.59	10.06		
CV		6.5	8.4	7.9	6.0		
LSD (0.1)		0.92	1.04	0.83	0.74		

Trial seeded at 25 lb/ acre viable seed on Yolo clay loam soil at the UC Davis Agronomy Farms, 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. 2006 YIELDS, UC KEARNEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 3/15/05

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

	FD	Cut							YEAR TOTAL	% of CUF101	
		1-May	30-May	29-Jun	25-Jul	24-Aug	22-Sep	26-Oct			
Released Varieties											
Magna995	9	3.0 (7)	2.7 (1)	2.6 (1)	2.3 (5)	2.0 (2)	1.6 (6)	1.5 (8)	15.5 (1)	A	121.2
DesertSun 8.10RR (RR04BD-406)	8.4	2.7 (26)	2.5 (10)	2.6 (2)	2.4 (1)	1.9 (4)	1.6 (5)	1.4 (11)	15.1 (3)	ABC	117.8
CW 801	8	3.0 (5)	2.6 (3)	2.5 (5)	2.2 (9)	1.8 (15)	1.5 (15)	1.4 (12)	15.1 (4)	ABC	117.7
W L625HQ	9.2	2.8 (21)	2.4 (21)	2.5 (10)	2.3 (4)	1.8 (17)	1.7 (1)	1.6 (2)	15.0 (5)	ABC	117.3
Integra 8900 (FG91T403)	9	2.7 (33)	2.5 (4)	2.4 (13)	2.2 (7)	1.9 (8)	1.6 (2)	1.5 (3)	14.9 (7)	ABCD	116.5
Magna788	8	3.2 (1)	2.4 (16)	2.5 (6)	2.1 (18)	1.8 (11)	1.5 (21)	1.3 (22)	14.9 (8)	ABCDE	116.1
Meccalll	9	2.7 (25)	2.4 (23)	2.5 (7)	2.2 (8)	1.8 (19)	1.6 (10)	1.5 (4)	14.7 (10)	ABCDE	114.8
W L525 HQ	8	2.6 (38)	2.4 (32)	2.3 (27)	2.1 (13)	1.9 (7)	1.6 (9)	1.4 (13)	14.2 (19)	CDEFGHIJ	111.2
Croplan843	8	2.5 (40)	2.3 (38)	2.3 (25)	2.2 (10)	1.8 (14)	1.6 (10)	1.4 (13)	14.2 (20)	CDEFGHIJK	110.8
58N57	9	2.8 (20)	2.5 (14)	2.4 (21)	2.1 (24)	1.7 (30)	1.5 (20)	1.3 (34)	14.1 (21)	CDEFGHIJKL	110.5
YOSEMITE	8	2.9 (10)	2.4 (25)	2.4 (23)	1.9 (37)	1.7 (33)	1.4 (30)	1.4 (15)	14.1 (22)	CDEFGHIJKL	110.5
CG9	9	2.7 (32)	2.3 (43)	2.4 (15)	2.1 (25)	1.8 (20)	1.5 (23)	1.3 (21)	14.1 (23)	CDEFGHIJKLM	109.9
GrandSlam (FG82M204)	8	2.9 (9)	2.4 (22)	2.4 (20)	1.9 (41)	1.7 (24)	1.4 (43)	1.3 (32)	14.1 (25)	CDEFGHIJKLM	109.8
Pacifico	8	2.8 (23)	2.4 (24)	2.2 (37)	2.0 (33)	1.8 (22)	1.5 (17)	1.4 (19)	14.0 (27)	CDEFGHIJKLMN	109.5
W L535HQ	8.2	2.5 (44)	2.3 (48)	2.3 (26)	2.1 (15)	1.9 (6)	1.5 (12)	1.4 (16)	14.0 (28)	CDEFGHIJKLMN	109.2
RR04BD-454	9	2.8 (24)	2.4 (17)	2.3 (29)	2.0 (28)	1.7 (29)	1.4 (32)	1.2 (43)	13.9 (29)	DEFGHIJKLMNO	108.6
Integra 8801R (RR04BD-407)	7.8	2.7 (29)	2.5 (11)	2.2 (39)	2.1 (27)	1.7 (31)	1.5 (29)	1.3 (28)	13.9 (30)	DEFGHIJKLMNPO	108.5
Pershing	8	2.8 (14)	2.4 (27)	2.4 (16)	2.0 (29)	1.6 (44)	1.4 (37)	1.2 (44)	13.9 (31)	DEFGHIJKLMNPO	108.4
Impalo	9	2.7 (34)	2.3 (45)	2.3 (28)	2.1 (23)	1.7 (28)	1.4 (33)	1.3 (23)	13.8 (33)	DEFGHIJKLMNPO	107.7
AmeriStand 855TRR (RR04BD-408)	8.5	2.8 (22)	2.3 (39)	2.2 (42)	1.9 (39)	1.6 (48)	1.4 (34)	1.3 (24)	13.5 (35)	GHIJKLMNPOQ	105.8
AmeriStand 815TRR (RR04BD-409)	7.4	2.8 (16)	2.4 (20)	2.2 (43)	1.9 (46)	1.6 (50)	1.4 (40)	1.2 (41)	13.5 (37)	HIJKLMNPOQ	105.3
ArtesianSunrise	7	2.8 (17)	2.3 (44)	2.2 (36)	2.0 (32)	1.6 (49)	1.3 (47)	1.1 (47)	13.3 (39)	IJKLMNPOQ	104.1
Alfagraze 600RR (RR04BD-401)	6.4	2.4 (51)	2.3 (46)	2.2 (38)	2.0 (35)	1.7 (34)	1.4 (30)	1.2 (42)	13.2 (41)	JJKLMNPOQR	102.9
57Q75	7	2.5 (42)	2.2 (49)	2.2 (35)	1.9 (42)	1.6 (47)	1.4 (44)	1.1 (46)	13.0 (44)	MNOPQR	101.5
Conquistador	8	2.4 (46)	2.4 (26)	2.1 (49)	1.9 (45)	1.6 (45)	1.4 (45)	1.2 (38)	13.0 (45)	MNOPQR	101.3
DK180ML	8	3.0 (6)	2.4 (32)	2.1 (48)	1.7 (53)	1.5 (52)	1.2 (51)	1.0 (50)	12.9 (46)	NOPQR	101.1
W L711	10	2.2 (54)	2.2 (50)	1.9 (53)	1.8 (47)	1.6 (40)	1.6 (7)	1.6 (1)	12.9 (47)	NOPQR	100.9
Amerileaf 721	7	2.9 (12)	2.4 (29)	2.1 (51)	1.8 (51)	1.5 (51)	1.2 (52)	1.0 (49)	12.8 (49)	OPQR	100.0
CUF101	9	2.4 (52)	2.1 (54)	2.1 (46)	1.9 (43)	1.6 (42)	1.4 (38)	1.3 (27)	12.8 (50)	PQR	100.0
59N49	9	2.5 (43)	2.2 (53)	2.1 (50)	1.8 (48)	1.6 (38)	1.3 (46)	1.3 (34)	12.8 (51)	PQR	100.0
56S82	6	2.4 (49)	2.3 (47)	2.1 (47)	1.7 (52)	1.4 (53)	1.2 (53)	1.0 (51)	12.2 (53)	RS	95.5
Transition 6.10RR (RR04BD-487)	6.1	2.5 (45)	2.2 (51)	1.9 (54)	1.6 (54)	1.3 (54)	1.1 (54)	1.0 (53)	11.5 (54)	S	89.7
Experimental Varieties											
CW 048065	8	3.1 (2)	2.5 (9)	2.5 (4)	2.3 (2)	1.9 (3)	1.6 (8)	1.4 (9)	15.4 (2)	AB	120.2
X59N59	9	3.1 (4)	2.6 (2)	2.5 (8)	2.1 (16)	1.8 (16)	1.5 (19)	1.4 (18)	15.0 (6)	ABCD	116.9
ADF01-701	7	2.7 (28)	2.5 (12)	2.5 (3)	2.3 (3)	1.9 (10)	1.5 (16)	1.4 (17)	14.8 (9)	ABCDE	115.5
DS385	8	2.9 (11)	2.5 (7)	2.4 (12)	2.2 (12)	1.8 (13)	1.5 (14)	1.3 (25)	14.7 (11)	ABCDEF	114.5
DS399	9	3.1 (3)	2.5 (5)	2.4 (18)	2.1 (17)	1.7 (25)	1.5 (18)	1.2 (36)	14.7 (12)	ABCDEF	114.5
DS382	8	2.8 (19)	2.5 (13)	2.5 (8)	2.2 (6)	1.8 (11)	1.5 (25)	1.4 (20)	14.6 (13)	ABCDEF	114.3
FG101T407	10	2.8 (18)	2.3 (40)	2.4 (11)	2.1 (21)	1.9 (9)	1.5 (13)	1.5 (6)	14.6 (14)	ABCDEF	113.8
AA202W	8+	2.9 (13)	2.4 (29)	2.4 (14)	2.1 (22)	1.7 (27)	1.5 (22)	1.4 (10)	14.4 (15)	BCDEFGHI	112.2
Y58N88	8	2.8 (15)	2.5 (8)	2.4 (24)	2.2 (11)	1.8 (21)	1.4 (35)	1.2 (40)	14.3 (16)	BCDEFGHI	112.0
SW 9434	9	2.4 (48)	2.4 (34)	2.3 (30)	2.1 (14)	2.0 (1)	1.6 (3)	1.5 (5)	14.3 (17)	BCDEFGHI	112.0
DS381	8	2.9 (8)	2.5 (15)	2.4 (22)	2.1 (26)	1.8 (23)	1.5 (27)	1.2 (37)	14.3 (18)	CDEFGHI	111.6
CW 048069	8	2.7 (31)	2.4 (18)	2.4 (17)	2.1 (20)	1.7 (32)	1.5 (26)	1.3 (29)	14.1 (24)	CDEFGHIJKLM	109.9
SW 9332	9	2.5 (41)	2.3 (35)	2.2 (45)	2.1 (19)	1.9 (5)	1.6 (4)	1.5 (7)	14.0 (26)	CDEFGHIJKLM	109.7
FG91M401	9	2.6 (35)	2.5 (6)	2.4 (19)	1.9 (40)	1.7 (36)	1.4 (36)	1.2 (38)	13.8 (32)	DEFGHIJKLMNPO	107.7
RR04BD-436	8.7	2.6 (37)	2.4 (28)	2.2 (34)	1.9 (36)	1.7 (26)	1.4 (39)	1.3 (31)	13.6 (34)	FGHIJKLMNPOQ	106.2
DS384	8	2.6 (36)	2.3 (37)	2.3 (31)	2.0 (31)	1.6 (37)	1.5 (28)	1.2 (45)	13.5 (36)	HIJKLMNPOQ	105.4
AA203W	8	2.4 (47)	2.3 (36)	2.3 (32)	1.9 (38)	1.8 (18)	1.4 (41)	1.3 (29)	13.5 (38)	IJKLMNPOQ	105.2
RR04BD-474	8.3	2.4 (50)	2.3 (41)	2.2 (33)	2.0 (34)	1.6 (39)	1.5 (24)	1.3 (33)	13.3 (40)	IJKLMNPOQR	103.8
DS383	8	2.7 (27)	2.4 (31)	2.2 (40)	1.9 (44)	1.6 (41)	1.3 (49)	1.1 (48)	13.1 (42)	KLMNOPQR	102.2
RR04BD-435	8.6	2.3 (53)	2.3 (42)	2.2 (41)	2.0 (30)	1.6 (46)	1.4 (42)	1.3 (26)	13.1 (43)	LMNOPQR	102.1
AA201W	8	2.5 (39)	2.4 (19)	2.2 (44)	1.8 (49)	1.7 (35)	1.3 (48)	1.0 (54)	12.9 (48)	OPQR	100.4
AA200W	8	2.7 (30)	2.2 (52)	2.0 (52)	1.8 (50)	1.6 (43)	1.3 (50)	1.0 (52)	12.6 (52)	QR	98.4
MEAN		2.71	2.38	2.30	2.03	1.72	1.45	1.29	13.88		
CV		12.5	7.1	7.9	8.0	9.6	7.7	11.2	6.7		
LSD (0.1)		0.40	0.20	0.22	0.19	0.20	0.13	0.17	1.10		

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. 2005-2006 YIELDS, UC KEARNEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 3/15/05

	FD	2005		2006		Average		% of
		Yield	Yield	Yield	Yield			CUF101
Released Varieties			Dry t/a					%
WL625HQ	9.2	11.3 (1)	15.0 (5)	13.2 (1)	A			117.7
DesertSun 8.10RR(RR04BD-406)	8.4	10.9 (2)	15.1 (3)	13.0 (2)	AB			116.3
Integra 8900(FG91T403)	9	10.7 (6)	14.9 (7)	12.8 (4)	ABCD			114.3
Magna995	9	9.9 (29)	15.5 (1)	12.7 (5)	ABCDE			113.8
CW801	8	10.3 (13)	15.1 (4)	12.7 (6)	ABCDE			113.4
58N57	9	10.7 (4)	14.1 (21)	12.4 (11)	ABCDEFGH I			111.0
MeccaIII	9	10.1 (19)	14.7 (10)	12.4 (12)	ABCDEFGH I			110.9
WL525 HQ	8	10.5 (10)	14.2 (19)	12.4 (15)	ABCDEFGH I			110.5
Magna788	8	9.8 (34)	14.9 (8)	12.4 (16)	ABCDEFGH I			110.4
RR04BD-454	9	10.6 (8)	13.9 (29)	12.3 (18)	BCDEFGH I J			109.5
CG9	9	10.2 (16)	14.1 (23)	12.1 (22)	BCDEFGH I J			108.4
Croplan843	8	9.9 (32)	14.2 (20)	12.0 (24)	CDEFGH I J K L			107.5
GrandSlam(FG82M204)	8	10.0 (28)	14.1 (25)	12.0 (25)	CDEFGH I J K L			107.4
YOSEMITE	8	9.8 (33)	14.1 (22)	12.0 (26)	CDEFGH I J K L M			107.2
Pershing	8	10.0 (24)	13.9 (31)	12.0 (29)	DEFGH I J K L M N O			106.9
WL535HQ	8.2	9.9 (31)	14.0 (28)	11.9 (31)	DEFGH I J K L M N O			106.6
Pacifico	8	9.7 (39)	14.0 (27)	11.9 (32)	EFGH I J K L M N O P			106.0
AmeriStand 815TRR(RR04BD-409)	7.4	10.1 (20)	13.5 (37)	11.8 (33)	FGH I J K L M N O P			105.4
Integra 8801R(RR04BD-407)	7.8	9.7 (40)	13.9 (30)	11.8 (34)	FGH I J K L M N O P			105.3
AmeriStand 855TRR(RR04BD-408)	8.5	10.0 (27)	13.5 (35)	11.8 (36)	FGH I J K L M N O P			105.2
Impalo	9	9.6 (41)	13.8 (33)	11.7 (39)	GH I J K L M N O P			104.6
Alfagraze 600RR(RR04BD-401)	6.4	10.1 (21)	13.2 (41)	11.6 (40)	H I J K L M N O P Q			103.9
57Q75	7	9.8 (36)	13.0 (44)	11.4 (42)	J K L M N O P Q R			101.8
ArtesianSunrise	7	9.4 (45)	13.3 (39)	11.4 (43)	J K L M N O P Q R			101.7
CUF101	9	9.6 (44)	12.8 (50)	11.2 (45)	K L M N O P Q R S			100.0
59N49	9	9.6 (43)	12.8 (51)	11.2 (46)	K L M N O P Q R S			100.0
WL711	10	9.4 (46)	12.9 (47)	11.1 (47)	L M N O P Q R S			99.6
Conquistador	8	9.2 (50)	13.0 (45)	11.1 (48)	M N O P Q R S			99.3
DK180ML	8	9.2 (51)	12.9 (46)	11.1 (50)	O P Q R S			99.0
Amerileaf 721	7	9.3 (49)	12.8 (49)	11.0 (51)	P Q R S			98.6
56S82	6	9.0 (53)	12.2 (53)	10.6 (53)	R S			94.8
Transition 6.10RR(RR04BD-487)	6.1	9.4 (47)	11.5 (54)	10.4 (54)	S			93.2
Experimental Varieties								
CW048065	8	10.3 (12)	15.4 (2)	12.9 (3)	ABC			114.9
X59N59	9	10.3 (15)	15.0 (6)	12.6 (7)	ABCDE F			112.8
AA202W	8+	10.7 (5)	14.4 (15)	12.5 (8)	ABCDE F G			111.9
CW048069	8	10.9 (3)	14.1 (24)	12.5 (9)	ABCDE F G H			111.7
FG101T407	10	10.4 (11)	14.6 (14)	12.5 (10)	ABCDE F G H I			111.4
DS385	8	10.1 (18)	14.7 (11)	12.4 (13)	ABCDE F G H I			110.8
ADF01-701	7	10.0 (26)	14.8 (9)	12.4 (14)	ABCDE F G H I			110.8
Y58N88	8	10.2 (17)	14.3 (16)	12.3 (17)	BCDE F G H I J			109.6
DS382	8	9.8 (35)	14.6 (13)	12.2 (19)	BCDE F G H I J			109.3
SW9434	9	10.0 (23)	14.3 (17)	12.2 (20)	BCDE F G H I J			109.0
DS381	8	10.1 (22)	14.3 (18)	12.2 (21)	BCDE F G H I J			108.8
SW9332	9	10.0 (25)	14.0 (26)	12.0 (23)	CDE F G H I J K			107.6
RR04BD-474	8.3	10.7 (7)	13.3 (40)	12.0 (27)	DE F G H I J K L M N			107.0
DS399	9	9.3 (48)	14.7 (12)	12.0 (28)	DE F G H I J K L M N			107.0
RR04BD-436	8.7	10.3 (14)	13.6 (34)	11.9 (30)	DE F G H I J K L M N O			106.7
RR04BD-435	8.6	10.5 (9)	13.1 (43)	11.8 (35)	F G H I J K L M N O P			105.3
FG91M401	9	9.7 (38)	13.8 (32)	11.8 (37)	F G H I J K L M N O P			105.1
DS384	8	9.9 (30)	13.5 (36)	11.7 (38)	G H I J K L M N O P			104.7
AA203W	8	9.7 (37)	13.5 (38)	11.6 (41)	I J K L M N O P Q			103.8
AA201W	8	9.6 (42)	12.9 (48)	11.2 (44)	K L M N O P Q R S			100.4
DS383	8	9.1 (52)	13.1 (42)	11.1 (49)	N O P Q R S			99.2
AA200W	8	8.9 (54)	12.6 (52)	10.8 (52)	Q R S			96.2
MEAN		9.97	13.88	11.92				
CV		7.5	6.7	6.3				
LSD (0.1)		0.89	1.10	0.89				

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. 2006 YIELDS, LANCASTER ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 9/22/05

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
	FD	5-May	1-Jun	7-Jul	5-Aug	1-Sep	TOTAL	MOAPA 69
				t/ac				%
Released Varieties								
Hybri-Force 620	6	3.1 (1)	1.1 (13)	2.1 (9)	1.2 (23)	1.2 (10)	8.8 (1)	120.5
CW 704	7	2.4 (5)	1.0 (23)	2.5 (1)	1.2 (18)	1.4 (3)	8.5 (2)	116.3
Artesian Sunrise	7	2.3 (8)	1.2 (3)	2.1 (13)	1.3 (5)	1.2 (8)	8.1 (3)	111.9
Cutmor	8	2.2 (20)	1.1 (11)	2.3 (2)	1.3 (10)	1.3 (7)	8.1 (4)	111.7
DKA 50-18	5	2.4 (4)	1.1 (9)	2.0 (16)	1.4 (1)	1.1 (15)	8.1 (5)	111.2
Cal West 28099	8	2.3 (11)	1.2 (2)	2.3 (3)	1.4 (2)	0.9 (26)	8.1 (6)	111.0
Parma 864	5	2.3 (12)	1.0 (25)	2.1 (10)	1.1 (27)	1.5 (1)	8.1 (7)	111.0
WL 530 HQ	8	2.5 (2)	1.3 (1)	1.9 (25)	1.3 (15)	1.0 (23)	8.0 (8)	110.2
Ritter Godde Blend	6	2.4 (6)	1.1 (6)	2.2 (5)	1.3 (8)	1.0 (25)	7.9 (9)	109.1
Dura 843	8	2.1 (24)	1.1 (7)	2.2 (6)	1.3 (14)	1.2 (13)	7.9 (10)	108.3
TA 707	7	2.2 (19)	1.0 (26)	2.0 (14)	1.2 (17)	1.3 (4)	7.8 (11)	107.4
Sutter	7	2.3 (9)	1.2 (5)	2.0 (22)	1.3 (4)	1.1 (21)	7.8 (12)	107.4
Wildcard	8	2.5 (3)	1.2 (3)	2.0 (19)	1.3 (9)	0.9 (30)	7.8 (13)	107.3
WL 530 HQ + Optimize	8	2.3 (7)	1.1 (10)	2.2 (7)	1.3 (6)	0.9 (29)	7.8 (14)	107.3
TA 844	8	2.2 (18)	1.1 (8)	2.2 (4)	1.2 (21)	1.0 (24)	7.7 (15)	105.7
CW 28099 + Optimize	8	2.1 (27)	1.1 (15)	1.9 (24)	1.4 (3)	1.2 (9)	7.7 (16)	105.4
Dura 512	5	2.3 (10)	1.1 (12)	2.0 (23)	1.2 (22)	1.1 (19)	7.7 (17)	105.2
Dura 765	7	2.2 (14)	1.1 (18)	2.2 (8)	1.3 (11)	0.9 (27)	7.6 (18)	105.0
Dura 765 + Optimize	8	2.2 (16)	1.1 (14)	2.1 (12)	1.2 (20)	1.0 (22)	7.6 (19)	105.0
C-241	6	2.2 (17)	1.0 (23)	2.0 (20)	1.3 (16)	1.2 (14)	7.6 (20)	104.6
Magna 801 HQ	8	2.0 (29)	1.1 (19)	2.1 (11)	1.3 (13)	1.2 (11)	7.6 (21)	104.3
SW 7410	7	2.1 (26)	1.0 (21)	2.0 (18)	1.3 (7)	1.1 (17)	7.6 (22)	104.3
Conquistador	8	2.2 (21)	1.1 (17)	2.0 (17)	1.3 (12)	1.1 (20)	7.6 (23)	104.2
Lahontan	6	2.3 (13)	1.0 (22)	1.9 (28)	1.1 (30)	1.3 (6)	7.6 (24)	103.8
Tahoe	6	2.1 (23)	1.0 (27)	2.0 (21)	1.1 (28)	1.4 (2)	7.5 (25)	103.7
Arriba	7	2.1 (25)	0.9 (29)	2.0 (15)	1.2 (19)	1.2 (12)	7.5 (26)	102.8
Moapa 69	8	2.0 (28)	1.1 (20)	1.7 (30)	1.2 (25)	1.3 (4)	7.3 (27)	100.0
Mountaneer 2.0	4	2.2 (15)	1.1 (16)	1.9 (29)	1.2 (24)	0.9 (28)	7.2 (28)	99.6
Archer II	5	2.1 (22)	1.0 (28)	1.9 (27)	1.1 (29)	1.1 (16)	7.2 (29)	99.5
WL 357 HQ	5	1.8 (30)	0.9 (30)	1.9 (26)	1.1 (26)	1.1 (18)	6.9 (30)	95.2
MEAN		2.25	1.08	2.05	1.24	1.14	7.76	
CV		17.1	12.9	11.8	11.0	18.2	9.4	
LSD (0.1)		NS	NS	0.29	0.16	0.25	NS	

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

FD = Fall Dormancy reported by seed companies.

Mean of Cut 6 is 1.04 (Cut 6 not reported due to missing data)

TABLE 10. 2006 YIELDS, UC IMPERIAL VALLEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 11/30/2005

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
		16-Mar	2-May	1-Jun	29-Jun	2-Aug	5-Sep	5-Oct	15-Nov	TOTAL		CUF101
	FD	Dry t/a										%
Released Varieties												
Royal 10	10	1.3 (1)	1.3 (2)	1.5 (2)	1.3 (5)	0.5 (4)	0.5 (5)	0.6 (5)	0.6 (6)	7.8 (1)	A	118.8
Impalo	9	1.3 (7)	1.3 (7)	1.5 (5)	1.4 (1)	0.6 (3)	0.5 (1)	0.6 (4)	0.6 (4)	7.8 (2)	AB	118.2
Highline	9	1.3 (6)	1.3 (4)	1.4 (12)	1.2 (16)	0.5 (15)	0.4 (11)	0.7 (3)	0.7 (1)	7.5 (5)	ABC	114.2
59N49	9	1.3 (2)	1.3 (16)	1.4 (9)	1.3 (8)	0.5 (7)	0.5 (7)	0.6 (12)	0.6 (13)	7.5 (6)	ABC	114.1
WL 625 HQ	9	1.3 (7)	1.3 (13)	1.3 (17)	1.4 (3)	0.5 (9)	0.4 (9)	0.6 (7)	0.6 (7)	7.4 (7)	ABCD	113.0
El Camino 888	8	1.2 (17)	1.3 (9)	1.5 (1)	1.3 (7)	0.5 (13)	0.4 (9)	0.6 (15)	0.6 (16)	7.4 (9)	ABCD	112.9
CW 909	9	1.2 (16)	1.4 (1)	1.4 (8)	1.3 (9)	0.5 (23)	0.4 (15)	0.6 (17)	0.6 (11)	7.3 (11)	ABCDE	110.7
El Camino 1010	10	1.3 (4)	1.3 (11)	1.4 (11)	1.2 (15)	0.5 (20)	0.4 (22)	0.6 (18)	0.6 (14)	7.3 (13)	ABCDE	110.1
El Camino 999	9	1.3 (9)	1.3 (14)	1.5 (4)	1.2 (14)	0.5 (19)	0.4 (17)	0.5 (22)	0.5 (25)	7.2 (14)	ABCDE	109.2
Max Royal	9	1.1 (26)	1.3 (5)	1.4 (7)	1.2 (17)	0.5 (9)	0.4 (14)	0.6 (11)	0.6 (12)	7.2 (15)	ABCDE	108.9
AL999	9	1.2 (11)	1.3 (6)	1.3 (23)	1.3 (11)	0.5 (8)	0.4 (23)	0.5 (20)	0.6 (17)	7.1 (16)	ABCDE	108.3
TriplePlay	9	1.2 (20)	1.3 (14)	1.4 (9)	1.3 (12)	0.5 (11)	0.4 (12)	0.5 (25)	0.6 (20)	7.1 (17)	ABCDE	108.2
HB8900 (91T403)	9	1.2 (17)	1.2 (18)	1.3 (19)	1.2 (13)	0.5 (22)	0.4 (13)	0.6 (9)	0.6 (19)	7.0 (19)	BCDEF	106.7
El Camino 999 M/L	9	1.1 (23)	1.3 (3)	1.3 (24)	1.1 (22)	0.4 (27)	0.4 (20)	0.6 (8)	0.6 (5)	6.9 (20)	CDEF	104.7
Belleza Verde	10	1.2 (10)	1.3 (12)	1.3 (20)	1.1 (23)	0.5 (18)	0.4 (25)	0.5 (27)	0.5 (28)	6.9 (21)	CDEF	104.0
CUF101	9	1.1 (24)	1.2 (23)	1.2 (27)	1.1 (21)	0.5 (21)	0.4 (24)	0.5 (24)	0.6 (17)	6.6 (27)	EF	100.0
Experimental Varieties												
CW 20046	10	1.3 (5)	1.3 (8)	1.4 (14)	1.4 (2)	0.6 (2)	0.5 (8)	0.6 (13)	0.6 (9)	7.5 (3)	ABC	114.4
ADF 05801	9	1.2 (13)	1.3 (10)	1.5 (3)	1.3 (4)	0.5 (6)	0.5 (6)	0.6 (10)	0.6 (15)	7.5 (4)	ABC	114.3
DS593	9	1.2 (15)	1.3 (17)	1.4 (13)	1.3 (6)	0.5 (4)	0.5 (4)	0.6 (6)	0.7 (2)	7.4 (8)	ABCD	112.9
UC-409	10	1.1 (25)	1.2 (20)	1.4 (6)	1.2 (18)	0.5 (12)	0.5 (3)	0.7 (1)	0.6 (8)	7.3 (10)	ABCDE	111.1
DS594	9	1.3 (3)	1.2 (19)	1.4 (16)	1.3 (10)	0.5 (14)	0.4 (19)	0.6 (16)	0.6 (10)	7.3 (12)	ABCDE	110.4
SW9434	9	1.0 (27)	1.2 (22)	1.3 (18)	1.1 (28)	0.5 (16)	0.5 (2)	0.7 (2)	0.7 (3)	7.1 (18)	BCDEF	107.0
IVM5	9	1.2 (14)	1.2 (26)	1.3 (21)	1.1 (24)	0.5 (17)	0.4 (18)	0.5 (23)	0.6 (23)	6.7 (22)	DEF	102.3
DS595	9	1.2 (12)	1.2 (21)	1.4 (15)	1.2 (20)	0.4 (25)	0.3 (27)	0.5 (28)	0.5 (26)	6.7 (23)	DEF	102.1
CW19062	10	1.2 (21)	1.2 (25)	1.3 (22)	1.2 (19)	0.4 (24)	0.4 (26)	0.5 (26)	0.5 (27)	6.6 (24)	EF	100.8
SW9332	9	1.1 (22)	1.2 (24)	1.3 (25)	1.1 (26)	0.4 (26)	0.4 (21)	0.6 (14)	0.6 (21)	6.6 (25)	EF	100.6
101T409	10	1.2 (19)	1.1 (28)	1.2 (28)	1.1 (25)	0.6 (1)	0.4 (16)	0.5 (20)	0.6 (24)	6.6 (26)	EF	100.2
UC-410	10	1.0 (28)	1.2 (27)	1.2 (26)	1.1 (27)	0.4 (28)	0.3 (28)	0.6 (19)	0.6 (22)	6.3 (28)	F	96.0
MEAN		1.19	1.27	1.37	1.22	0.49	0.43	0.58	0.60	7.14		
CV		10.6	7.5	10.3	12.8	16.7	15.4	14.0	13.2	9.0		
LSD (0.1)		0.15	0.11	0.17	0.19	NS	0.08	0.10	NS	0.77		

Trial planted at 25 lb/acre viable seed in Imperial clay loam soil at the UC Desert Research and Extension Center, Holtville, CA.

Entries followed by the same letter are no significantly different at the 10% probability level according to Fishers (protected) LSD.

FD = Fall Dormancy reported by seed companies.

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	P.O. Box 883	Visalia, CA	93274	559-779-2676	559-688-1674	ADForages@aol.com
Agriliance LLC.	Joe Bush	510 E Monte Christo Rd.	Edinburg, TX	78540	956-380-0710		JHBush@agriliance.com
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	Lauren Johnson	P.O. Box 1428	Woodland, CA	95776	530-666-3331	530-666-1464	L.Johnson@Calwestseeds.com
Croplan Genetics	Dennis Gehler	P. O. Box 64406	St. Paul, MN	55164	651-765-5710	651-765-5727	dlgehler@landolakes.com
Dairyland Seed Co.	Dan Gardner	13147 Jackson Hwy.	Sloughhouse, 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	eurekaseed@aol.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	208-466-3568	208-466-3684	bknipe@forage-genetics.com
Forage Genetics Intrnl.	Jess W. Bice	P.O. Box 339	Nampa, ID	83653	800-635-5701	208-466-3684	jbice@forage-genetics.com
Germain's Seeds	Doug Elkins	4782 E. Jensen Ave.	Fresno, CA	93777	559-233-8823	559-233-8830	delkins@seedsolutions.com
Gowan Seeds	Cory Ritz	903 West 500th South	Farmington, UT	84025	801-971-5359	801-451-9699	critz@forage-genetics.com
Great Plains Research	Thad Busbice	3624 Kildaire Farm Rd	Apex, NC.	27502	1-800-874-7945	919-387-7918	alfalfa@greatplainsresearch.com
IV Milling	Ray Johnson	P. O. Box 389	Holtville, CA	92250	760-356-2914	760-356-2916	ivmray@earthlink.net
Kamprath Seed Co.	Alan Steigerwald	205 Stockton St.	Manteca, CA	95337	209-823-6242	209-823-2582	alan@kamprathseed.com
Kellogg's Seed Service	W.L. Bill Kellogg	3367 Neal Rd.	Paradise, CA	95969	530-877-3366	530-877-0245	wlk242@cs.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	810 W. Main Suite C	Visalia, CA	93291	559-627-0666	559-627-0742	bill.cox@monsanto.com
Monsanto Golbal Seed Group	Jeff Koscelny	800 N. Lindberg Blvd C3S	St. Louis, MO	63167	314-694-2335		Jeffery.koscelny@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.	Terry Hobson	11939A Sugarmill Rd.	Longmont,CO	80501	800-521-7021	303-682-2482	terry.hobson@seeds.novartis.com
PGI / MBS, Inc.	Dean Teslow	409 North St.	Decorah, IA	52101	866-744-5710	563-382-2433	dean.teslow@seminis.com
Pioneer Hi-Bred	Mark Smith	1040 Settler Rd.	Connell, WA	99326	509-234-9046	509-234-3610	mark.a.smith@pioneer.com
Pioneer Hi-Bred	Roger Vinande	3605 Beyer Park Rd.	Modesto, CA	95355	209-578-3314	209-527-3336	Roger.Vinande@pioneer.com
Pioneer Hi-Bred	Gene Gengelbach	7100 NW 62 nd Ave.	Johnston, IA	50131	515-334-6426	515-334-6370	gene.gengelbach@pioneer.com
Producer's Choice/PGI	Marty Crum	P.O. Box 1069	Woodland, CA	95776	800-523-7115	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	559-291-6195	559-291-2605	swseedco@pacbell.net
Simplot Seeds	Mike Benson	19766 So. Hiway 99	Tulare, CA	93274	559-687-2767		Mbenon@Simplot.com
Simplot Seeds	Lorell Skogsberg	418 S. 9th St Suite 308	Boise, ID	83702	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
Syngenta Seeds	Joe Waldo	7500 Olson Memorial Hwy	Golden Valley, MN	55427	763-59-7324	763-593-7203	joe.waldo@syngenta.com
Target Seed, LLC	Don Miller	P.O. Box 300	Parma, ID	83660	208-250-0376		donm@targetseed.com
Union Seed	Jess W. Bice	P.O. Box 339	Nampa, ID	83653	800-635-5701	208-466-3684	jbice@forage-genetics.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	559-436-2941	559-436-2949	sford@agriumretail.com
Wilbur Ellis Company	Derek wkinn	P. O. Box 15289	Sacramento, CA	95851	916-991-9833	916-991-1837	dwinn@wilbur-ellis.com
UAP/United Agri Products	Walter Bryant	4914 HWY 20/26	Caldwell, ID	83605	208-454-0475		walter.bryant@uap.com