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# 2014 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 2014. 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 Stanislaus Valley (1 location), the San Joaquin Valley (2 locations) and and the Imperial Valley (low desert, Figure 1). The alfalfa variety trial data from the University of California is placed online; often well in advance of this published report (http://alfalfa.ucdavis.edu/).

## INTRODUCTION

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

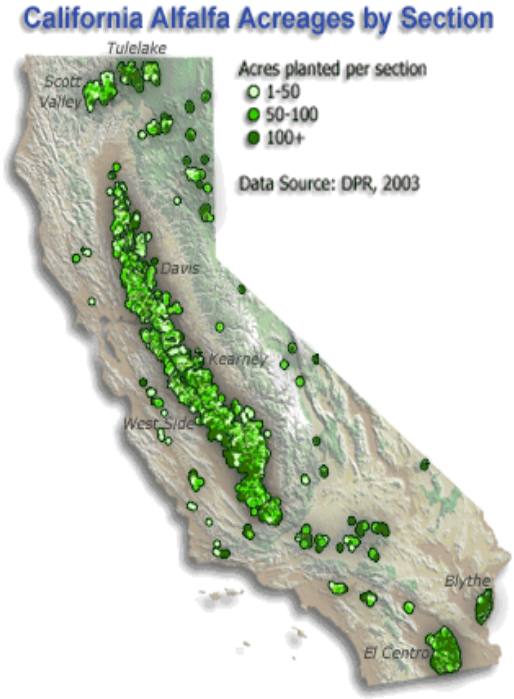


Figure 1. *California alfalfa acreage. The Intermountain region is represented by Tulelake and Scott Valley, Sacramento Valley by Davis, San Joaquin Valley by Kearney and West Side Locations, high desert by the Lancaster trial, and Low Desert by the El Centro trial.*

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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 from alfalfa trials harvested in California in 2014.

## 2014 ALFALFA PRODUCTION YEAR

The 2014 production season was generally characterized by a much drier winter season with only 49% its historic average rainfall which caused the reservoirs to be diminished from their previous highs. This year's dry spell can be partly linked to a stubborn high-pressure system sitting off California's shores. This high-pressure ridge acted like a roadblock for winter storms that typically deliver California's rain and snow. The high pressure steered east-flowing storms north, toward the Pacific Northwest, instead of allowing tropical moisture to crash into California's mountains.
The same high-pressure ridge has also sent temperatures soaring, with California sweating through its hottest year on record. January through May 2014 was the hottest string of months in the state since 1895.
California is in its 3rd year of drought conditions, with increased water limitations in most regions due to low water supplies for irrigation. The minimal rainfall during the early spring allowed earlier harvests from the growers in the San Joaquin Valley and southern regions. The Intermountain areas also had a fairly dry spring. The moderate and dry fall months enabled excellent late production (high yields and high quality) for many growers.

Record prices occurred in 2014 and were well above the 10-year average, rising to over $250/ton in some of the key dairy areas of Central California. This situation continued through the summer and fall months. Hay production was up 8% in the 2014 season. New plantings of alfalfa are up. Pricing of alfalfa was still up with fair hay between $240-300.00/ton and supreme hay prices at $325-365.00/ton. Moving into the new year the price of alfalfa remains high.

## 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. In the fall of 2014 three new trials were established: the UC Davis Trial was planted on 9/13/2014, the Stanislaus Trial was planted on 10/9/2014 and the Westside Salinity Trial was planted on 10/21/2014. In the UC Davis Trial we installed a drip irrigation system.

Seven alfalfa variety yield trials were harvested from Tulelake, Scott's Valley, Davis, Modesto, Parlier, and El Centro, CA in 2014. 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 that 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.

## 2014 YIELD RESULTS

### Intermountain Region

***2010 UC Tulelake Yield Trial*** – 2015 is the last year that this trial will be harvested for yield. Single year results from four 2014 harvests are provided in Table 2 with the first cutting taking place on June 10, 2014.Yield differences from highest to lowest yielding variety were approximately 1.7 tons/acre. The average yield across all varieties was 8.44 tons/acre. The CVs were relatively low; indicating control of varieties was stable over each cut in this trial. Yields averaged over the three years were over 8.3 tons/acre (Table 3). The yearly yield average between high and low varieties was nearly 1.3 tons/acre difference averaged over the three years.

***2013 UC Tulelake Yield Trial -- –*** A new trial was planted with 42 entries on August 21, 203 in Tulelake. Four cuttings were conducted during the 2014 season with the first cutting taking place on June 11, 2014. Single year results from the 2014 harvests are provided in Table 1. The average yield across all varieties was 9.7 tons/acre. The yearly yield averages between high and low varieties were about 2.3 tons.

***2012 UC Scott Valley RR Trial*** – The Scott Valley Roundup Ready Trial is now in its second year. The trial was originally established with 30 entries May 4, 2012 on a grower's field in Scott Valley, CA. In the 2014 year, single year results are only from two because with cut 2 the hay was too lodged to be able to harvest with a Carter plot harvester. That second harvest was taken by the grower on July 24, 2014. The single year results are provided in Table 11 and the over-the-years data provided in Table 12. Yield differences from two harvests from highest to lowest-yielding variety were approximately .9 tons/acre. The average yield across all varieties was 5.6 tons/acre. Yields averaged over the two years were a little over 6.2 tons/acre (Table 12). The across-the-years yield average between high and low varieties was .8 tons/acre. The CVs were relatively low; indicating control of varieties was stable over each cut in this trial.

## Sacramento Valley

***2011 UC Davis Yield Trial–*** This is the third and final year for UC Davis Yield Trial. Seven cuttings were conducted during the season with the first cutting in the season on April 15, 2014. Single year results from the seven harvests are provided in Table 4 and multiple year results in Table 5. The yield across all varieties was 10.2 tons/acre. The yearly yield average between high and low varieties was 2.9 tons/acre difference. A couple of the harvests mid summer were relatively high due to irrigation imbalances in the replications. Multiple year yield differences from highest to lowest yielding variety were approximately 2.1 tons/acre. The average yield across all varieties was 9.16 tons/acre.

## Stanislaus County

***2011 UC Stanislaus Yield Trial-- –*** This is the third and final year of the 2011 Stanislaus Yield Trial. Seven cuttings were conducted during the 2014 season with the first cutting taking place on May 5, 2014. Single year results from the 2014 harvests are provided in Table 6. The average yield across all varieties was 11.5 tons/acre. The yearly yield averages between high and low varieties were about 3.3 tons/acre difference, and CVs were moderate, indicating average control of variation in this trial. The fall dormancy ranges were from 6-10. Multiple year yield(Table 7) differences from highest to lowest yielding variety were approximately 2.8 tons/acre. The average yield across all varieties was 10.33 tons/acre.

## San Joaquin Valley

***2013 UC Kearney Yield Trial –*** A new trial was planted with 48 entries September 18, 2013 at the Kearney Research and Extension Center. This is the first year to produce yield data in this trial. Seven cuttings were conducted during the 2013 season with the first cutting taking place on April 23, 2013. Single year results from the 2013 harvests are provided in Table 8. The average yield across all varieties was 13.25 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 7-10.

## Low Desert

***2012 UC Imperial Yield Trial –***This trial was planted with 36 varieties on October 8, 2012. The trial had drip tape installed to insure better irrigation management. This is the second year of yield data on this trial. Eight cuttings were conducted during the 2014 season with the first cutting taking place on Mar 10, 2014. Single year results from the 2014 harvests are provided in Table 9. The average yield across all varieties was 10 tons/acre. The yearly yield averages between high and low varieties was nearly 1.9 tons/acre difference, and CVs were moderate, indicating average control of variation in this trial. The fall dormancy ranges were from 9-10. Multiple year yield (Table 10) differences from highest to lowest yielding variety were approximately 2.2 tons/acre. The average yield across all varieties was 12.5 tons/acre.

## 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 1-9 over-the years summaries (or from our website). Since this report contains single-year summaries, we recommend that you see the over-the years summaries from the relevant locations which is on our website: http://alfalfa.ucdavis.edu
2. **Determine the Pest Resistance and Fall Dormancy needs** for your region. The FD scores are provided on these tables and in the Alfalfa Alliance Website (see #3).
3. **Consider the Fall Dormancy and Pest resistance Ratings** of individual varieties – available at the Alfalfa Alliance Website (www.alfalfa.org).
4. **Choose those high yielding varieties** with the best Pest Resistance package for your region.
5. **Consider evidence for high quality** if available (such information is not always widely available, but generally more dormant varieties tend to be higher in quality).
6. **Consider Biotech Traits** such as the Glyphosate-Resistance that could be available in the near future. This should be compared as a comprehensive weed control strategy, not just a variety.
7. **Test a variety on portions of your farm** to see how it does under your soil conditions.
8. **Consider the price of seed, availability and Service.**

## ACKNOWLEDGMENTS

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## TABLE 1. 2014 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 8/21/13

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 |
|---|---|---|---|---|---|---|---|---|
| | | 11-Jun | 16-Jul | 15-Aug | 23-Sep | TOTAL | | VERNAL |
| | FD | | | Dry t/a | | | | % |
| **Released Varieties** | | | | | | | | |
| Masterpiece II | 4 | 3.3 ( 1) | 2.4 ( 1) | 2.2 (11) | 2.4 (19) | 10.3 ( 1) | A | 111.4 |
| Integra 8420 (EM) | 5 | 2.9 (19) | 2.3 (14) | 2.2 (12) | 2.6 ( 2) | 10.1 ( 4) | A B C D | 108.4 |
| Archer III | 5 | 3.0 (10) | 2.3 ( 2) | 2.2 (10) | 2.5 (16) | 10.0 ( 5) | A B C D | 108.3 |
| WL 363HQ | 5 | 3.1 ( 6) | 2.3 ( 5) | 2.3 ( 7) | 2.3 (32) | 10.0 ( 6) | A B C D | 108.2 |
| RR NemaStar | 4 | 2.8 (26) | 2.3 ( 8) | 2.3 ( 8) | 2.6 ( 3) | 10.0 ( 7) | A B C D E | 107.9 |
| AmeriStand 455TQ RR | 4 | 2.9 (18) | 2.3 (12) | 2.3 ( 4) | 2.5 (11) | 10.0 ( 8) | A B C D E | 107.7 |
| Integra 8420 (OGP) | 4 | 2.9 (17) | 2.3 (16) | 2.2 (17) | 2.5 ( 7) | 9.9 ( 9) | A B C D E F | 107.1 |
| Integra 8400 | 4 | 3.0 ( 8) | 2.3 (22) | 2.2 (13) | 2.4 (24) | 9.9 (10) | A B C D E F | 107.1 |
| 6422Q | 4 | 3.1 ( 7) | 2.3 ( 6) | 2.1 (31) | 2.4 (29) | 9.9 (11) | A B C D E F | 106.7 |
| 6401N | 4 | 2.8 (31) | 2.3 (19) | 2.2 (27) | 2.6 ( 5) | 9.8 (15) | B C D E F G | 105.6 |
| WL 372HQ.RR | 4 | 2.8 (24) | 2.2 (26) | 2.2 ( 9) | 2.5 (15) | 9.7 (17) | C D E F G H | 105.0 |
| 6585Q | 5 | 2.6 (39) | 2.3 (25) | 2.3 ( 3) | 2.5 ( 8) | 9.7 (18) | C D E F G H | 104.9 |
| DKA44-16RR | 4 | 2.9 (20) | 2.3 (17) | 2.2 (24) | 2.4 (28) | 9.7 (19) | C D E F G H | 104.6 |
| Trophy | 4 | 3.2 ( 3) | 2.2 (28) | 2.1 (38) | 2.2 (36) | 9.7 (20) | C D E F G H I | 104.4 |
| 6547R | 4 | 2.8 (27) | 2.3 (21) | 2.2 (28) | 2.5 (17) | 9.7 (21) | C D E F G H I | 104.3 |
| DG 4210 | 4 | 3.0 (11) | 2.3 (20) | 2.2 (26) | 2.2 (35) | 9.7 (22) | C D E F G H I | 104.2 |
| Nimbus | 5 | 2.7 (35) | 2.3 ( 9) | 2.2 (19) | 2.4 (21) | 9.7 (23) | C D E F G H I | 104.2 |
| Integra 8401RR | 4 | 2.7 (34) | 2.3 ( 3) | 2.2 (18) | 2.4 (25) | 9.6 (24) | C D E F G H I | 103.8 |
| WL 354HQ | 4 | 2.8 (22) | 2.3 (13) | 2.2 (22) | 2.3 (30) | 9.6 (25) | C D E F G H I | 103.7 |
| 6516R | 5 | 2.7 (36) | 2.2 (29) | 2.2 (20) | 2.5 (13) | 9.6 (26) | C D E F G H I | 103.4 |
| RR Tonnica | 5 | 2.7 (38) | 2.3 (23) | 2.2 (23) | 2.4 (18) | 9.6 (27) | C D E F G H I | 103.3 |
| Integra 8444RR | 4 | 2.6 (42) | 2.1 (40) | 2.3 ( 2) | 2.6 ( 4) | 9.6 (28) | C D E F G H I | 103.2 |
| Integra 8420 (QR) | 7 | 2.8 (25) | 2.1 (38) | 2.1 (30) | 2.5 (12) | 9.6 (29) | C D E F G H I | 103.1 |
| Mutiny | 4 | 2.6 (40) | 2.2 (32) | 2.2 (25) | 2.6 ( 6) | 9.6 (30) | D E F G H I | 103.0 |
| AmeriStand 445NT | 4 | 3.0 (13) | 2.2 (36) | 2.1 (36) | 2.4 (27) | 9.5 (31) | D E F G H I | 102.9 |
| 6497R | 4 | 2.8 (29) | 2.3 (10) | 2.1 (33) | 2.3 (31) | 9.5 (32) | E F G H I | 102.4 |
| Integra 8420 (OGP+EM) | 6 | 2.7 (33) | 2.1 (37) | 2.2 (21) | 2.4 (23) | 9.5 (33) | F G H I | 102.1 |
| AmeriStand 415NT RR | 4 | 2.8 (28) | 2.3 (18) | 2.1 (32) | 2.3 (34) | 9.5 (34) | F G H I | 101.9 |
| Integra 8420 | 4 | 3.0 (15) | 2.1 (41) | 2.1 (37) | 2.4 (26) | 9.4 (35) | F G H I | 101.7 |
| Rhino | 4 | 3.2 ( 4) | 2.2 (35) | 2.0 (41) | 2.1 (39) | 9.4 (36) | F G H I | 101.7 |
| Camas | 4 | 2.6 (41) | 2.2 (33) | 2.1 (34) | 2.4 (20) | 9.3 (38) | G H I | 100.8 |
| Vernal | 2 | 3.2 ( 5) | 2.2 (34) | 2.1 (39) | 1.9 (41) | 9.3 (39) | H I | 100.0 |
| AmeriStand 427 | 4 | 2.8 (23) | 2.2 (31) | 2.1 (35) | 2.1 (40) | 9.2 (40) | H I | 99.7 |
| DKA43-22RR | 4 | 2.7 (37) | 2.1 (39) | 2.2 (29) | 2.2 (37) | 9.2 (41) | I | 99.0 |
| **Experimental Varieties** | | | | | | | | |
| FG 49W202 | 5 | 2.9 (16) | 2.3 (11) | 2.3 ( 1) | 2.7 ( 1) | 10.3 ( 2) | A B | 110.9 |
| SW4332 | 4 | 3.0 ( 9) | 2.3 ( 7) | 2.2 (16) | 2.5 ( 9) | 10.1 ( 3) | A B C | 108.6 |
| FG 49W201 | 5 | 2.8 (21) | 2.3 (24) | 2.3 ( 6) | 2.5 (10) | 9.9 (12) | A B C D E F | 106.6 |
| SW4328 | 4 | 3.0 (12) | 2.2 (30) | 2.3 ( 5) | 2.4 (22) | 9.9 (13) | A B C D E F | 106.5 |
| SW4351 | 4 | 3.2 ( 2) | 2.3 (15) | 2.0 (40) | 2.3 (33) | 9.8 (14) | B C D E F G | 105.7 |
| FG R49W215 | 4 | 2.7 (32) | 2.3 ( 4) | 2.2 (14) | 2.5 (14) | 9.8 (16) | C D E F G H | 105.1 |
| FG R57OK217 | 5 | 2.8 (30) | 2.2 (27) | 2.2 (15) | 2.1 (38) | 9.4 (37) | G H I | 100.9 |
| SW3304 | 3 | 3.0 (14) | 1.8 (42) | 1.7 (42) | 1.5 (42) | 8.0 (42) | J | 85.9 |
| MEAN | | 2.87 | 2.24 | 2.17 | 2.37 | 9.66 | | |
| CV | | 6.8 | 5.2 | 7.5 | 8.8 | 4.4 | | |
| LSD (0.1) | | 0.23 | 0.14 | 0.20 | 0.25 | 0.51 | | |

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. 2014 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 |
|---|---|---|---|---|---|---|---|---|
| | | 10-Jun | 16-Jul | 14-Aug | 23-Sep | TOTAL | | VERNAL |
| | FD | | | Dry t/a | | | | % |
| R48M153 FG | 4 | 3.0 ( 2) | 2.7 ( 1) | 1.8 ( 3) | 1.6 (12) | 9.0 ( 1) | A | 119.0 |
| Lightening IV | 4 | 2.8 (12) | 2.6 ( 7) | 1.8 ( 2) | 1.7 ( 4) | 9.0 ( 2) | A B | 118.2 |
| Syngenta 6422Q-EMD | 4 | 2.9 ( 3) | 2.6 ( 4) | 1.7 ( 6) | 1.6 (16) | 8.9 ( 3) | A B C | 116.7 |
| DG4210 | 4 | 2.9 ( 9) | 2.6 ( 2) | 1.7 ( 7) | 1.6 (13) | 8.8 ( 4) | A B C | 116.7 |
| MasterPiece II | 4 | 2.7 (26) | 2.6 ( 5) | 1.8 ( 1) | 1.7 ( 3) | 8.8 ( 5) | A B C D | 116.4 |
| R57M129 FG | 5 | 2.9 ( 8) | 2.6 ( 9) | 1.7 ( 8) | 1.6 (10) | 8.8 ( 6) | A B C D | 116.2 |
| R47M120 FG | 4 | 2.9 ( 5) | 2.6 ( 3) | 1.7 (17) | 1.6 (11) | 8.8 ( 7) | A B C D | 116.2 |
| R57M130 FG | 5 | 2.8 (18) | 2.5 (13) | 1.7 (15) | 1.8 ( 1) | 8.8 ( 8) | A B C D E | 116.0 |
| Syngenta 6422Q | 4 | 2.9 ( 4) | 2.6 ( 6) | 1.7 ( 9) | 1.6 (17) | 8.8 ( 9) | A B C D E | 116.0 |
| WL 357 HQ | 4 | 2.9 ( 6) | 2.5 (15) | 1.7 ( 5) | 1.6 ( 9) | 8.8 (10) | A B C D E | 115.9 |
| WL 363 HQ | 5 | 2.8 (22) | 2.6 ( 8) | 1.7 (10) | 1.7 ( 7) | 8.7 (11) | A B C D E F | 115.2 |
| Integra 8400 | 4 | 3.1 ( 1) | 2.4 (18) | 1.7 (16) | 1.5 (24) | 8.7 (12) | A B C D E F | 114.7 |
| R46Bx163 | 4 | 2.9 ( 7) | 2.6 (11) | 1.6 (23) | 1.6 (18) | 8.7 (13) | B C D E F | 114.4 |
| Archer III | 5 | 2.8 (15) | 2.5 (12) | 1.7 (12) | 1.6 (20) | 8.6 (14) | B C D E F G | 113.9 |
| AmeriStand407TQ | 4 | 2.8 (17) | 2.6 (10) | 1.7 (19) | 1.6 (15) | 8.6 (15) | B C D E F G | 113.8 |
| Rebound 6.0 | 4 | 2.8 (16) | 2.5 (14) | 1.8 ( 4) | 1.5 (26) | 8.6 (16) | C D E F G H | 113.2 |
| R47M312 FG | 4 | 2.8 (14) | 2.4 (17) | 1.6 (22) | 1.7 ( 8) | 8.5 (17) | C D E F G H I | 112.6 |
| R48W224 FG | 4 | 2.7 (25) | 2.4 (22) | 1.7 (14) | 1.8 ( 2) | 8.5 (18) | C D E F G H I | 112.5 |
| R46Bx162 | 4 | 2.8 (13) | 2.4 (20) | 1.7 (13) | 1.5 (21) | 8.5 (19) | D E F G H I J | 111.9 |
| Minerva | 5 | 2.6 (28) | 2.4 (19) | 1.7 (11) | 1.7 ( 6) | 8.5 (20) | E F G H I J | 111.5 |
| PGI 459 | 4 | 2.8 (19) | 2.3 (25) | 1.7 (18) | 1.6 (19) | 8.4 (21) | F G H I J | 110.7 |
| Integra 8300 | 3 | 2.8 (20) | 2.5 (16) | 1.7 (21) | 1.5 (27) | 8.4 (22) | F G H I J | 110.6 |
| R56Bx212 | 5 | 2.6 (31) | 2.4 (23) | 1.7 (20) | 1.7 ( 5) | 8.3 (23) | G H I J | 109.7 |
| GrandStand | 4 | 2.9 (11) | 2.4 (21) | 1.6 (25) | 1.4 (28) | 8.3 (24) | H I J K | 109.1 |
| MS Sunstra 803 | 4 | 2.9 (10) | 2.3 (26) | 1.5 (27) | 1.5 (22) | 8.2 (25) | I J K L | 108.4 |
| HybriForce 2400 | 4 | 2.8 (21) | 2.4 (24) | 1.6 (24) | 1.4 (30) | 8.2 (26) | J K L M | 107.7 |
| Xtra-3 | 4 | 2.6 (29) | 2.3 (27) | 1.5 (26) | 1.5 (23) | 7.9 (27) | K L M N | 104.6 |
| Mountaneer II | 5 | 2.6 (30) | 2.2 (28) | 1.5 (28) | 1.5 (25) | 7.9 (28) | L M N | 104.0 |
| Dura 512 | 5 | 2.7 (24) | 2.2 (29) | 1.5 (29) | 1.4 (29) | 7.9 (29) | M N | 103.6 |
| Vernal | 2 | 2.7 (23) | 2.1 (30) | 1.4 (31) | 1.3 (31) | 7.6 (30) | N O | 100.0 |
| R65BD278 | 6 | 2.2 (32) | 2.1 (32) | 1.4 (30) | 1.6 (14) | 7.3 (31) | O | 96.7 |
| Rugged | 3 | 2.7 (27) | 2.1 (31) | 1.3 (32) | 1.2 (32) | 7.3 (32) | O | 95.8 |
| MEAN | | 2.78 | 2.43 | 1.65 | 1.57 | 8.44 | | |
| CV | | 6.7 | 4.8 | 6.0 | 7.1 | 3.9 | | |
| LSD (0.1) | | 0.20 | 0.13 | 0.11 | 0.12 | 0.35 | | |

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. 2011-2014 YIELDS, TULELAKE ALFALFA CULTIVAR TRIAL. TRIAL PLANTED 8/17/10**

| | | 2011 Yield | 2012 Yield | 2013 Yield | 2014 Yield | Average | | % of Vernal |
|---|---|---|---|---|---|---|---|---|
| | FD | | | Dry t/a | | | | % |
| Integra 8400 | 4 | 8.2 ( 8) | 8.9 ( 1) | 9.0 ( 2) | 8.7 (12) | 8.7 ( 1) | A | 111.3 |
| DG4210 | 4 | 8.2 ( 5) | 8.4 (20) | 9.1 ( 1) | 8.8 ( 4) | 8.6 ( 2) | A B | 110.6 |
| WL 357 HQ | 4 | 8.2 ( 7) | 8.7 ( 7) | 8.7 ( 9) | 8.8 (10) | 8.6 ( 3) | A B C | 110.2 |
| WL 363 HQ | 5 | 8.2 (10) | 8.7 ( 8) | 8.8 ( 4) | 8.7 (11) | 8.6 ( 4) | A B C D | 110.0 |
| Archer III | 5 | 8.0 (14) | 8.9 ( 2) | 8.9 ( 3) | 8.6 (14) | 8.6 ( 5) | A B C D | 110.0 |
| R57M129 FG | 5 | 8.3 ( 2) | 8.5 (17) | 8.7 (10) | 8.8 ( 6) | 8.6 ( 6) | A B C D | 109.9 |
| Syngenta 6422Q | 4 | 8.0 (17) | 8.7 ( 5) | 8.8 ( 7) | 8.8 ( 9) | 8.6 ( 7) | A B C D E | 109.6 |
| Lightening IV | 4 | 7.7 (25) | 8.8 ( 3) | 8.7 (12) | 9.0 ( 2) | 8.6 ( 8) | A B C D E | 109.5 |
| R57M130 FG | 5 | 8.3 ( 4) | 8.8 ( 4) | 8.4 (23) | 8.8 ( 8) | 8.6 ( 9) | A B C D E | 109.5 |
| R46Bx162 | 4 | 8.0 (13) | 8.6 (11) | 8.8 ( 5) | 8.5 (19) | 8.5 (10) | A B C D E | 108.6 |
| AmeriStand407TQ | 4 | 8.1 (12) | 8.6 (13) | 8.6 (14) | 8.6 (15) | 8.5 (11) | A B C D E | 108.6 |
| Syngenta 6422Q-EMD | 4 | 7.8 (23) | 8.7 ( 9) | 8.6 (16) | 8.9 ( 3) | 8.5 (12) | A B C D E | 108.6 |
| R47M120 FG | 4 | 7.8 (24) | 8.6 (10) | 8.7 (13) | 8.8 ( 7) | 8.5 (13) | A B C D E | 108.5 |
| R46Bx163 | 4 | 7.9 (20) | 8.7 ( 6) | 8.6 (17) | 8.7 (13) | 8.5 (14) | A B C D E | 108.5 |
| MasterPiece II | 4 | 7.9 (21) | 8.5 (19) | 8.6 (15) | 8.8 ( 5) | 8.5 (15) | B C D E | 108.3 |
| Rebound 6.0 | 4 | 7.9 (19) | 8.5 (18) | 8.7 ( 8) | 8.6 (16) | 8.4 (16) | B C D E | 107.9 |
| MS Sunstra 803 | 4 | 8.8 ( 1) | 8.2 (23) | 8.5 (19) | 8.2 (25) | 8.4 (17) | B C D E | 107.8 |
| R48M153 FG | 4 | 7.6 (29) | 8.6 (14) | 8.5 (20) | 9.0 ( 1) | 8.4 (18) | B C D E | 107.8 |
| HybriForce 2400 | 4 | 8.3 ( 3) | 8.6 (12) | 8.5 (18) | 8.2 (26) | 8.4 (19) | C D E F | 107.5 |
| PGI 459 | 4 | 8.2 ( 9) | 8.5 (16) | 8.4 (21) | 8.4 (21) | 8.4 (20) | C D E F | 107.4 |
| GrandStand | 4 | 8.2 ( 6) | 8.3 (22) | 8.7 (11) | 8.3 (24) | 8.4 (21) | C D E F | 107.3 |
| R47M312 FG | 4 | 8.0 (15) | 8.5 (15) | 8.4 (22) | 8.5 (17) | 8.4 (22) | D E F | 107.1 |
| Integra 8300 | 3 | 7.8 (22) | 8.4 (21) | 8.8 ( 6) | 8.4 (22) | 8.3 (23) | E F G | 106.9 |
| R56Bx212 | 5 | 7.9 (18) | 8.2 (25) | 8.3 (24) | 8.3 (23) | 8.2 (24) | F G H | 104.7 |
| R48W224 FG | 4 | 7.7 (27) | 8.2 (26) | 8.2 (28) | 8.5 (18) | 8.1 (25) | G H | 104.1 |
| Minerva | 5 | 7.4 (31) | 8.1 (27) | 8.3 (25) | 8.5 (20) | 8.1 (26) | H | 103.1 |
| Xtra-3 | 4 | 7.7 (26) | 8.2 (24) | 8.2 (27) | 7.9 (27) | 8.0 (27) | H I | 102.6 |
| Dura 512 | 5 | 8.1 (11) | 7.9 (29) | 8.1 (29) | 7.9 (29) | 8.0 (28) | H I | 102.5 |
| Mountaneer II | 5 | 8.0 (16) | 8.0 (28) | 8.1 (30) | 7.9 (28) | 8.0 (29) | H I | 102.2 |
| Vernal | 2 | 7.6 (28) | 7.8 (30) | 8.2 (26) | 7.6 (30) | 7.8 (30) | I | 100.0 |
| Rugged | 3 | 7.4 (32) | 7.4 (31) | 7.8 (31) | 7.3 (32) | 7.5 (31) | J | 95.8 |
| R65BD278 | 6 | 7.4 (30) | 7.2 (32) | 7.5 (32) | 7.3 (31) | 7.4 (32) | J | 94.1 |
| MEAN | | 7.96 | 8.41 | 8.50 | 8.44 | 8.33 | | |
| CV | | 4.0 | 4.1 | 3.8 | 3.9 | 2.6 | | |
| LSD (0.1) | | 0.34 | 0.37 | 0.35 | 0.35 | 0.23 | | |

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. 2014 YIELDS, UC DAVIS ALFALFA CULTIVAR TRIAL. TRIAL PLANTED NOV. 2, 2011**

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

| | | Cut 1 | Cut 2 | Cut 3 | Cut 4 | Cut 5 | Cut 6 | Cut 7 | YEAR | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 15-Apr | 14-May | 12-Jun | 11-Jul | 11-Aug | 8-Sep | 17-Oct | TOTAL | |
| | FD | Dry t/a | | | | | | | | |
| **Released Varieties** | | | | | | | | | | |
| Catalina | 9 | 1.5 ( 15) | 1.3 ( 6) | 1.8 ( 3) | 2.3 ( 1) | 2.2 ( 1) | 1.5 ( 1) | 1.1 ( 1) | 11.8 ( 1) | A |
| Saltana | 9 | 1.5 ( 35) | 1.2 ( 20) | 1.9 ( 2) | 2.3 ( 2) | 2.0 ( 9) | 1.5 ( 2) | 1.0 ( 3) | 11.4 ( 2) | A B |
| Pacifico | 8 | 1.7 ( 1) | 1.5 ( 1) | 1.7 ( 13) | 2.1 ( 8) | 2.0 ( 10) | 1.4 ( 7) | 0.9 ( 8) | 11.3 ( 3) | A B C |
| AmeriStand 803T -EM09 | 9 | 1.6 ( 3) | 1.4 ( 5) | 1.8 ( 7) | 2.1 ( 8) | 2.1 ( 3) | 1.4 ( 7) | 0.8 ( 10) | 11.2 ( 4) | A B C D |
| GrandSlam | 8 | 1.5 ( 9) | 1.2 ( 30) | 1.9 ( 1) | 2.1 ( 6) | 1.8 ( 28) | 1.4 ( 11) | 1.0 ( 4) | 10.9 ( 5) | A B C D E |
| FGI R96Bx308 | 9 | 1.5 ( 24) | 1.2 ( 27) | 1.8 ( 5) | 2.2 ( 3) | 1.9 ( 16) | 1.5 ( 5) | 0.8 ( 17) | 10.9 ( 6) | A B C D E F |
| Arriba II | 6 | 1.5 ( 10) | 1.4 ( 2) | 1.7 ( 11) | 2.1 ( 13) | 2.0 ( 7) | 1.4 ( 14) | 0.8 ( 21) | 10.9 ( 7) | A B C D E F |
| WL 454HQ.RR | 6 | 1.5 ( 15) | 1.3 ( 15) | 1.7 ( 13) | 2.1 ( 5) | 2.0 ( 10) | 1.2 ( 27) | 0.8 ( 14) | 10.7 ( 10) | B C D E F G H I |
| Integra 8800 | 8 | 1.6 ( 5) | 1.3 ( 6) | 1.6 ( 23) | 2.1 ( 10) | 1.8 ( 26) | 1.4 ( 11) | 0.8 ( 27) | 10.6 ( 11) | B C D E F G H I |
| AmeriStand 803T (Opt-Gold+) | 9 | 1.5 ( 31) | 1.3 ( 6) | 1.6 ( 28) | 2.1 ( 6) | 1.9 ( 19) | 1.4 ( 10) | 0.8 ( 23) | 10.6 ( 13) | B C D E F G H I J |
| 6610N | 6 | 1.6 ( 3) | 1.3 ( 6) | 1.7 ( 11) | 1.9 ( 29) | 2.0 ( 5) | 1.1 ( 36) | 0.8 ( 26) | 10.5 ( 15) | B C D E F G H I J K |
| FGI R57K138 | 5 | 1.5 ( 24) | 1.3 ( 11) | 1.8 ( 7) | 2.2 ( 4) | 1.9 ( 24) | 1.2 ( 32) | 0.7 ( 34) | 10.4 ( 17) | B C D E F G H I J K L |
| Integra 8600 | 6 | 1.5 ( 31) | 1.2 ( 26) | 1.6 ( 20) | 1.9 ( 27) | 2.0 ( 7) | 1.3 ( 18) | 0.8 ( 10) | 10.4 ( 18) | C D E F G H I J K L |
| AmeriStand 803T | 8 | 1.5 ( 10) | 1.3 ( 12) | 1.4 ( 42) | 2.0 ( 15) | 1.8 ( 30) | 1.3 ( 16) | 0.8 ( 12) | 10.3 ( 19) | D E F G H I J K L M |
| FGI R66Bx311 | 6 | 1.5 ( 31) | 1.2 ( 27) | 1.6 ( 22) | 2.0 ( 14) | 1.9 ( 12) | 1.2 ( 25) | 0.8 ( 23) | 10.3 ( 20) | D E F G H I J K L M |
| DS611 | 6 | 1.3 ( 47) | 1.3 ( 12) | 1.7 ( 19) | 2.0 ( 16) | 1.9 ( 24) | 1.3 ( 21) | 0.8 ( 27) | 10.2 ( 22) | E F G H I J K L M N |
| Westar | 8 | 1.5 ( 15) | 1.2 ( 39) | 1.8 ( 4) | 2.0 ( 21) | 1.8 ( 33) | 1.2 ( 31) | 0.7 ( 31) | 10.1 ( 23) | E F G H I J K L M N |
| Gunner | 5 | 1.5 ( 15) | 1.2 ( 18) | 1.6 ( 28) | 1.9 ( 31) | 2.1 ( 2) | 1.1 ( 40) | 0.7 ( 38) | 10.1 ( 25) | E F G H I J K L M N |
| HybriForce-2600 | 6 | 1.6 ( 6) | 1.3 ( 15) | 1.6 ( 28) | 2.0 ( 23) | 1.9 ( 20) | 1.1 ( 36) | 0.7 ( 39) | 10.1 ( 27) | E F G H I J K L M N |
| Tango | 6 | 1.6 ( 7) | 1.3 ( 10) | 1.6 ( 32) | 2.0 ( 20) | 1.7 ( 45) | 1.2 ( 30) | 0.7 ( 37) | 10.0 ( 28) | E F G H I J K L M N |
| La Jolla | 9 | 1.6 ( 8) | 1.2 ( 20) | 1.5 ( 40) | 1.8 ( 43) | 1.8 ( 37) | 1.3 ( 23) | 0.9 ( 5) | 10.0 ( 29) | E F G H I J K L M N |
| FGI R57W213 | 5 | 1.5 ( 24) | 1.2 ( 24) | 1.7 ( 15) | 2.0 ( 16) | 1.9 ( 22) | 1.1 ( 43) | 0.6 ( 42) | 10.0 ( 31) | F G H I J K L M N |
| FGI R57K337 | 4 | 1.5 ( 31) | 1.3 ( 17) | 1.5 ( 34) | 2.0 ( 21) | 1.8 ( 31) | 1.1 ( 43) | 0.8 ( 17) | 9.9 ( 32) | G H I J K L M N |
| DKA65-10RR | 6 | 1.4 ( 40) | 1.2 ( 30) | 1.6 ( 33) | 2.0 ( 23) | 1.8 ( 33) | 1.1 ( 34) | 0.9 ( 9) | 9.9 ( 33) | H I J K L M N |
| WL 440HQ | 6 | 1.4 ( 44) | 1.3 ( 12) | 1.7 ( 15) | 1.9 ( 32) | 1.9 ( 22) | 1.1 ( 41) | 0.7 ( 40) | 9.9 ( 34) | H I J K L M N |
| FGI R65BD279 | 7 | 1.5 ( 24) | 1.2 ( 37) | 1.5 ( 39) | 1.9 ( 34) | 1.7 ( 39) | 1.3 ( 17) | 0.7 ( 34) | 9.9 ( 35) | I J K L M N |
| 6R100 | 6 | 1.4 ( 37) | 1.2 ( 27) | 1.6 ( 24) | 2.0 ( 23) | 1.9 ( 16) | 1.0 ( 45) | 0.6 ( 44) | 9.8 ( 38) | I J K L M N O |
| 8R100 | 8.5 | 1.5 ( 14) | 1.2 ( 30) | 1.5 ( 34) | 1.9 ( 34) | 1.7 ( 42) | 1.1 ( 36) | 0.8 ( 17) | 9.8 ( 39) | I J K L M N O |
| Revolt (RR) | 6 | 1.4 ( 45) | 1.2 ( 18) | 1.7 ( 18) | 1.8 ( 41) | 1.7 ( 46) | 1.1 ( 36) | 0.6 ( 42) | 9.6 ( 42) | L M N O |
| FGI R56Bx214 | 4 | 1.5 ( 21) | 1.2 ( 23) | 1.6 ( 31) | 1.9 ( 37) | 1.8 ( 37) | 1.0 ( 46) | 0.5 ( 46) | 9.5 ( 43) | L M N O |
| FGI R47OK215 | 4 | 1.4 ( 37) | 1.2 ( 30) | 1.4 ( 42) | 1.9 ( 40) | 1.7 ( 39) | 1.1 ( 34) | 0.6 ( 45) | 9.4 ( 44) | M N O |
| DS815 | 8 | 1.5 ( 24) | 1.2 ( 30) | 1.4 ( 46) | 1.8 ( 42) | 1.6 ( 47) | 1.2 ( 32) | 0.7 ( 41) | 9.3 ( 46) | N O |
| 4R200 | 4 | 1.4 ( 43) | 1.1 ( 42) | 1.4 ( 44) | 1.7 ( 46) | 1.8 ( 36) | 1.0 ( 47) | 0.5 ( 47) | 8.9 ( 47) | O |
| **Experimental Varieties** | | | | | | | | | | |
| SW 920 | 9 | 1.4 ( 40) | 1.4 ( 3) | 1.6 ( 26) | 2.1 ( 11) | 1.9 ( 16) | 1.5 ( 3) | 0.9 ( 7) | 10.9 ( 8) | B C D E F G |
| DS107444 | 7 | 1.7 ( 1) | 1.4 ( 4) | 1.7 ( 9) | 2.0 ( 16) | 1.9 ( 12) | 1.2 ( 29) | 0.8 ( 15) | 10.8 ( 9) | B C D E F G H |
| SW 9106 | 9 | 1.5 ( 35) | 1.2 ( 24) | 1.7 ( 9) | 2.0 ( 16) | 1.9 ( 15) | 1.4 ( 9) | 0.8 ( 12) | 10.6 ( 12) | B C D E F G H I |
| SW 9107 | 9 | 1.4 ( 37) | 1.2 ( 20) | 1.8 ( 6) | 1.9 ( 26) | 1.7 ( 43) | 1.4 ( 6) | 1.0 ( 2) | 10.6 ( 14) | B C D E F G H I J K |
| SW 8105 | 8 | 1.5 ( 10) | 1.1 ( 40) | 1.7 ( 17) | 2.1 ( 11) | 1.8 ( 26) | 1.4 ( 13) | 0.8 ( 21) | 10.4 ( 16) | B C D E F G H I J K L |
| UC-410 | 9 | 1.4 ( 40) | 1.1 ( 42) | 1.6 ( 26) | 1.9 ( 29) | 2.0 ( 6) | 1.3 ( 22) | 0.9 ( 6) | 10.2 ( 21) | E F G H I J K L M N |
| SW 900 | 9 | 1.5 ( 15) | 1.2 ( 35) | 1.5 ( 38) | 1.9 ( 27) | 1.7 ( 41) | 1.5 ( 4) | 0.8 ( 17) | 10.1 ( 24) | E F G H I J K L M N |
| SW 910 | 9 | 1.5 ( 21) | 1.2 ( 35) | 1.5 ( 34) | 1.8 ( 45) | 2.1 ( 4) | 1.4 ( 14) | 0.8 ( 30) | 10.1 ( 26) | E F G H I J K L M N |
| UC-411 | 9 | 1.5 ( 10) | 1.2 ( 37) | 1.5 ( 41) | 1.9 ( 38) | 1.8 ( 33) | 1.3 ( 19) | 0.8 ( 15) | 10.0 ( 30) | F G H I J K L M N |
| UC-413 | 9 | 1.5 ( 15) | 1.1 ( 40) | 1.5 ( 34) | 1.9 ( 32) | 1.8 ( 31) | 1.3 ( 23) | 0.7 ( 31) | 9.9 ( 36) | I J K L M N |
| UC-412 | 9 | 1.5 ( 21) | 1.1 ( 44) | 1.6 ( 25) | 1.9 ( 39) | 1.8 ( 28) | 1.2 ( 25) | 0.7 ( 34) | 9.8 ( 37) | I J K L M N O |
| UC-409 | 9 | 1.4 ( 45) | 1.0 ( 46) | 1.6 ( 20) | 1.9 ( 34) | 1.7 ( 44) | 1.2 ( 28) | 0.8 ( 23) | 9.7 ( 40) | J K L M N O |
| UC-415 | 9 | 1.5 ( 30) | 1.0 ( 46) | 1.4 ( 46) | 1.8 ( 44) | 1.9 ( 20) | 1.3 ( 19) | 0.8 ( 29) | 9.6 ( 41) | K L M N O |
| UC-414 | 9 | 1.5 ( 24) | 1.1 ( 45) | 1.4 ( 44) | 1.6 ( 47) | 1.9 ( 12) | 1.1 ( 41) | 0.7 ( 31) | 9.4 ( 45) | M N O |
| MEAN | | 1.49 | 1.24 | 1.63 | 1.98 | 1.86 | 1.26 | 0.78 | 10.23 | |
| CV | | 11.5 | 10.7 | 13.6 | 9.8 | 13.6 | 13.6 | 22.2 | 7.8 | |
| LSD (0.1) | | NS | 0.16 | 0.26 | 0.23 | NS | 0.20 | 0.21 | 0.95 | |

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.

Cuf 101 was included in this trial, but data was eliminated due to doubts about the source of the seed.

**TABLE 5. 2012-2014 YIELDS, UC DAVIS ALFALFA CULTIVAR TRIAL. TRIAL PLANTED NOV. 2, 2011**

| | | 2012 Yield | 2013 Yield | 2014 Yield | Average | |
|---|---|---|---|---|---|---|
| | FD | Dry t/a | | | | |
| **Released Varieties** | | | | | | |
| Catalina | 9 | 7.2 ( 3) | 12.2 ( 1) | 11.8 ( 1) | 10.4 ( 1) | A |
| Saltana | 9 | 7.0 ( 7) | 12.1 ( 4) | 11.4 ( 2) | 10.1 ( 2) | A B |
| FGI R96Bx308 | 9 | 7.1 ( 6) | 12.0 ( 7) | 10.9 ( 6) | 10.0 ( 4) | A B C D |
| GrandSlam | 8 | 6.8 ( 9) | 11.7 (13) | 10.9 ( 5) | 9.8 ( 5) | A B C D E |
| 6610N | 6 | 6.7 (11) | 12.2 ( 2) | 10.5 (15) | 9.8 ( 6) | A B C D E |
| Westar | 8 | 7.1 ( 4) | 11.9 ( 8) | 10.1 (23) | 9.7 ( 7) | A B C D E F |
| WL 440HQ | 6 | 7.2 ( 2) | 12.0 ( 6) | 9.9 (34) | 9.7 ( 8) | A B C D E F G |
| Integra 8600 | 6 | 6.6 (12) | 12.1 ( 3) | 10.4 (18) | 9.7 ( 9) | A B C D E F G |
| AmeriStand 803T -EM09 | 9 | 5.7 (42) | 11.7 (12) | 11.2 ( 4) | 9.6 (12) | A B C D E F G H |
| FGI R66Bx311 | 6 | 6.6 (13) | 11.8 (10) | 10.3 (20) | 9.6 (13) | A B C D E F G H |
| Arriba II | 6 | 6.3 (25) | 11.5 (17) | 10.9 ( 7) | 9.5 (14) | A B C D E F G H |
| WL 454HQ.RR | 6 | 6.4 (20) | 11.5 (15) | 10.7 (10) | 9.5 (15) | A B C D E F G H I |
| 6R100 | 6 | 6.9 ( 8) | 11.8 (11) | 9.8 (38) | 9.5 (16) | A B C D E F G H I |
| AmeriStand 803T (Opt-Gold+) | 9 | 6.6 (17) | 11.2 (24) | 10.6 (13) | 9.5 (17) | A B C D E F G H I J |
| HybriForce-2600 | 6 | 6.6 (15) | 11.5 (14) | 10.1 (27) | 9.4 (18) | B C D E F G H I J K |
| Gunner | 5 | 6.0 (34) | 11.9 ( 9) | 10.1 (25) | 9.3 (20) | B C D E F G H I J K L |
| DS611 | 6 | 6.5 (19) | 11.3 (23) | 10.2 (22) | 9.3 (22) | B C D E F G H I J K L |
| FGI R57W213 | 5 | 6.3 (22) | 11.4 (19) | 10.0 (31) | 9.2 (24) | B C D E F G H I J K L M |
| DKA65-10RR | 6 | 6.3 (23) | 10.9 (27) | 9.9 (33) | 9.1 (27) | D E F G H I J K L M N |
| AmeriStand 803T | 8 | 6.4 (21) | 10.2 (34) | 10.3 (19) | 8.9 (29) | E F G H I J K L M N |
| Pacifico | 8 | 5.5 (46) | 9.8 (42) | 11.3 ( 3) | 8.8 (32) | F G H I J K L M N |
| La Jolla | 9 | 5.9 (37) | 10.5 (30) | 10.0 (29) | 8.8 (33) | F G H I J K L M N |
| FGI R57K138 | 5 | 6.1 (29) | 9.9 (41) | 10.4 (17) | 8.8 (34) | F G H I J K L M N |
| FGI R65BD279 | 7 | 6.0 (33) | 10.4 (33) | 9.9 (35) | 8.8 (35) | G H I J K L M N |
| FGI R56Bx214 | 4 | 6.6 (16) | 9.6 (44) | 9.5 (43) | 8.6 (37) | I J K L M N |
| FGI R57K337 | 4 | 5.6 (44) | 10.0 (35) | 9.9 (32) | 8.5 (38) | J K L M N |
| Revolt (RR) | 6 | 6.0 (31) | 10.0 (36) | 9.6 (42) | 8.5 (39) | J K L M N |
| Tango | 6 | 5.3 (47) | 10.0 (37) | 10.0 (28) | 8.5 (41) | K L M N |
| 8R100 | 8.5 | 6.0 (35) | 9.6 (45) | 9.8 (39) | 8.4 (42) | K L M N |
| FGI R47OK215 | 4 | 5.9 (36) | 9.9 (39) | 9.4 (44) | 8.4 (43) | L M N |
| Integra 8800 | 8 | 5.7 (43) | 8.9 (47) | 10.6 (11) | 8.4 (44) | L M N |
| 4R200 | 4 | 6.3 (26) | 9.7 (43) | 8.9 (47) | 8.3 (46) | M N |
| DS815 | 8 | 6.0 (32) | 9.4 (46) | 9.3 (46) | 8.3 (47) | N |
| **Experimental Varieties** | | | | | | |
| SW 9106 | 9 | 7.4 ( 1) | 12.0 ( 5) | 10.6 (12) | 10.0 ( 3) | A B C |
| SW 920 | 9 | 6.7 (10) | 11.5 (16) | 10.9 ( 8) | 9.7 (10) | A B C D E F G |
| DS107444 | 7 | 6.6 (14) | 11.4 (20) | 10.8 ( 9) | 9.6 (11) | A B C D E F G |
| SW 9107 | 9 | 7.1 ( 5) | 10.5 (31) | 10.6 (14) | 9.4 (19) | B C D E F G H I J K |
| SW 8105 | 8 | 6.5 (18) | 11.0 (26) | 10.4 (16) | 9.3 (21) | B C D E F G H I J K L |
| UC-410 | 9 | 6.2 (28) | 11.4 (18) | 10.2 (21) | 9.3 (23) | B C D E F G H I J K L |
| UC-412 | 9 | 6.3 (24) | 11.3 (21) | 9.8 (37) | 9.2 (25) | C D E F G H I J K L M N |
| SW 910 | 9 | 5.9 (38) | 11.3 (22) | 10.1 (26) | 9.1 (26) | C D E F G H I J K L M N |
| UC-413 | 9 | 6.1 (30) | 11.2 (25) | 9.9 (36) | 9.0 (28) | D E F G H I J K L M N |
| SW 900 | 9 | 5.9 (39) | 10.7 (29) | 10.1 (24) | 8.9 (30) | E F G H I J K L M N |
| UC-409 | 9 | 6.2 (27) | 10.8 (28) | 9.7 (40) | 8.9 (31) | E F G H I J K L M N |
| UC-411 | 9 | 5.5 (45) | 10.4 (32) | 10.0 (30) | 8.6 (36) | H I J K L M N |
| UC-415 | 9 | 5.9 (40) | 9.9 (40) | 9.6 (41) | 8.5 (40) | K L M N |
| UC-414 | 9 | 5.8 (41) | 10.0 (38) | 9.4 (45) | 8.4 (45) | L M N |
| MEAN | | 6.32 | 10.94 | 10.23 | 9.16 | |
| CV | | 11.3 | 14.6 | 7.8 | 8.8 | |
| LSD (0.1) | | 0.85 | NS | 0.95 | 0.96 | |

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.

Cuf 101 was included in this trial, but data was eliminated due to doubts about the source of the seed.

**TABLE 6. 2014 YIELDS, MODESTO ALFALFA CULTIVAR TRIAL. TRIAL PLANTED NOV. 7, 2011**

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

| | | Cut 1 | Cut 2 | Cut 3 | Cut 4 | Cut 5 | Cut 6 | Cut 7 | YEAR | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5-May | 2-Jun | 26-Jun | 28-Jul | 25-Aug | 13-Sep | 20-Oct | TOTAL | |
| | FD | Dry t/a | | | | | | | | |
| **Released Varieties** | | | | | | | | | | |
| Westar | 8 | 1.7 ( 7) | 1.9 ( 2) | 1.8 ( 5) | 2.9 ( 1) | 1.9 ( 1) | 1.8 ( 2) | 1.1 (16) | 13.1 ( 1) | A |
| DS919 | 9 | 1.8 ( 1) | 2.0 ( 1) | 1.8 (10) | 2.5 (12) | 1.6 (16) | 1.7 ( 5) | 1.3 ( 1) | 12.7 ( 2) | A B |
| AmeriStand 803T | 8 | 1.6 (26) | 1.7 (16) | 1.8 ( 7) | 2.6 ( 8) | 1.7 ( 7) | 1.7 ( 5) | 1.2 ( 8) | 12.3 ( 4) | A B C D |
| Saltana | 9 | 1.6 (27) | 1.8 ( 3) | 1.8 ( 3) | 2.4 (29) | 1.7 ( 5) | 1.7 (12) | 1.1 (14) | 12.2 ( 5) | A B C D E |
| AmeriStand 901TS | 9 | 1.6 (17) | 1.5 (41) | 1.8 ( 6) | 2.9 ( 2) | 1.7 (10) | 1.6 (16) | 1.1 (29) | 12.2 ( 6) | A B C D E |
| Integra 8600 | 6 | 1.8 ( 4) | 1.8 ( 4) | 1.6 (24) | 2.3 (45) | 1.7 ( 9) | 1.8 ( 1) | 1.2 ( 6) | 12.2 ( 7) | A B C D E |
| Pacifico | 8 | 1.6 (14) | 1.7 (13) | 1.7 (13) | 2.5 (16) | 1.7 ( 6) | 1.7 ( 7) | 1.2 ( 9) | 12.2 ( 8) | A B C D E |
| Catalina | 9 | 1.6 (32) | 1.7 (14) | 1.9 ( 2) | 2.5 (11) | 1.7 (12) | 1.7 (10) | 1.2 (10) | 12.1 ( 9) | A B C D E F |
| 4C810 | 8 | 1.7 (11) | 1.7 (10) | 1.7 (16) | 2.4 (26) | 1.6 (22) | 1.5 (25) | 1.3 ( 3) | 11.9 (14) | A B C D E F G |
| Arriba II(Optimize Gold+) | 6 | 1.6 (22) | 1.7 (19) | 1.6 (24) | 2.7 ( 5) | 1.6 (22) | 1.5 (19) | 1.2 (13) | 11.9 (15) | A B C D E F G H |
| Integra 8800 | 8 | 1.8 ( 2) | 1.6 (23) | 1.7 (20) | 2.6 ( 7) | 1.6 (27) | 1.4 (37) | 1.1 (19) | 11.9 (16) | A B C D E F G H |
| Arriba II | 6 | 1.7 ( 5) | 1.6 (35) | 1.7 (20) | 2.7 ( 6) | 1.6 (27) | 1.5 (31) | 1.2 (11) | 11.8 (17) | A B C D E F G H |
| GrandSlam | 8 | 1.6 (30) | 1.7 ( 9) | 1.7 (15) | 2.4 (36) | 1.6 (25) | 1.5 (22) | 1.3 ( 2) | 11.8 (18) | A B C D E F G H |
| DS815 | 8 | 1.5 (40) | 1.7 (18) | 1.7 (22) | 2.5 (10) | 1.6 (17) | 1.7 ( 7) | 1.1 (25) | 11.8 (19) | B C D E F G H |
| La Jolla | 9 | 1.6 (27) | 1.8 ( 5) | 1.7 (18) | 2.4 (36) | 1.7 (14) | 1.5 (24) | 1.0 (39) | 11.6 (20) | B C D E F G H |
| Artesia Sunrise | 7 | 1.8 ( 3) | 1.6 (31) | 1.5 (39) | 2.3 (38) | 1.5 (30) | 1.6 (15) | 1.2 (12) | 11.6 (21) | B C D E F G H |
| DS611 | 6 | 1.6 (27) | 1.6 (31) | 1.7 (23) | 2.5 (12) | 1.5 (34) | 1.5 (25) | 1.1 (15) | 11.5 (25) | B C D E F G H |
| 6610N | 6 | 1.7 (12) | 1.8 ( 7) | 1.5 (42) | 2.4 (30) | 1.5 (30) | 1.5 (30) | 1.1 (34) | 11.4 (26) | C D E F G H |
| Arriba II (EM-09) | 6 | 1.6 (20) | 1.6 (31) | 1.6 (36) | 2.3 (42) | 1.6 (19) | 1.7 ( 3) | 1.0 (48) | 11.4 (27) | C D E F G H |
| Transition 6.1 | 6 | 1.6 (32) | 1.6 (26) | 1.7 (13) | 2.4 (33) | 1.6 (21) | 1.5 (23) | 1.0 (51) | 11.4 (28) | C D E F G H |
| 8R100 | 8.5 | 1.7 (10) | 1.6 (26) | 1.6 (33) | 2.5 (20) | 1.4 (43) | 1.4 (42) | 1.2 ( 5) | 11.4 (30) | C D E F G H |
| Tango | 6 | 1.7 ( 6) | 1.7 (16) | 1.6 (35) | 2.4 (32) | 1.5 (38) | 1.5 (25) | 1.0 (50) | 11.3 (32) | C D E F G H |
| Dura 843 | 8 | 1.6 (32) | 1.4 (46) | 1.7 (17) | 2.4 (33) | 1.6 (20) | 1.6 (18) | 1.0 (41) | 11.3 (33) | D E F G H |
| Revolt | 6 | 1.6 (18) | 1.7 (15) | 1.6 (28) | 2.3 (47) | 1.5 (30) | 1.3 (48) | 1.1 (31) | 11.2 (35) | D E F G H I |
| DKA65-10RR | 6 | 1.5 (43) | 1.5 (44) | 1.6 (32) | 2.3 (42) | 1.5 (35) | 1.5 (29) | 1.1 (18) | 11.0 (39) | E F G H I J |
| 6R100 | 6 | 1.6 (22) | 1.6 (37) | 1.6 (33) | 2.3 (44) | 1.5 (37) | 1.5 (35) | 1.0 (41) | 11.0 (40) | E F G H I J |
| HybridForce-800 | 8 | 1.6 (20) | 1.4 (47) | 1.5 (39) | 2.5 (17) | 1.6 (25) | 1.4 (46) | 1.0 (47) | 11.0 (41) | E F G H I J |
| WL 550.RR | 8 | 1.5 (40) | 1.5 (44) | 1.5 (43) | 2.4 (21) | 1.4 (41) | 1.5 (34) | 1.1 (19) | 11.0 (42) | E F G H I J |
| Desert Sun 8.10RR | 8 | 1.5 (46) | 1.5 (39) | 1.6 (30) | 2.4 (33) | 1.5 (39) | 1.4 (36) | 1.1 (38) | 10.9 (44) | E F G H I J |
| Dura 512 | 5 | 1.6 (30) | 1.6 (23) | 1.5 (45) | 2.3 (38) | 1.4 (42) | 1.4 (44) | 1.0 (44) | 10.9 (45) | F G H I J |
| WL 440HQ | 6 | 1.6 (32) | 1.5 (39) | 1.5 (45) | 2.4 (25) | 1.3 (51) | 1.5 (31) | 1.0 (44) | 10.7 (46) | G H I J |
| WL 454HQ.RR | 6 | 1.3 (51) | 1.3 (50) | 1.5 (44) | 2.5 (17) | 1.5 (39) | 1.5 (28) | 1.1 (31) | 10.7 (47) | G H I J |
| Trifecta | 4 | 1.7 ( 9) | 1.6 (21) | 1.4 (49) | 2.2 (48) | 1.3 (46) | 1.3 (49) | 1.1 (31) | 10.7 (48) | H I J |
| Gunner | 5 | 1.4 (49) | 1.3 (49) | 1.5 (48) | 2.3 (46) | 1.3 (48) | 1.2 (50) | 1.0 (41) | 10.0 (49) | I J |
| Trifecta II | 4 | 1.5 (44) | 1.2 (51) | 1.4 (51) | 2.2 (50) | 1.3 (50) | 1.2 (50) | 1.1 (35) | 9.8 (51) | J |
| **Experimental Varieties** | | | | | | | | | | |
| DS098217 | 7 | 1.6 (16) | 1.5 (38) | 2.0 ( 1) | 2.7 ( 4) | 1.8 ( 2) | 1.7 ( 4) | 1.1 (19) | 12.6 ( 3) | A B C |
| FGI R97T710 | 9 | 1.6 (14) | 1.6 (28) | 1.7 (18) | 2.8 ( 3) | 1.7 (11) | 1.7 ( 7) | 1.1 (35) | 12.1 (10) | A B C D E F |
| SW 920 | 9 | 1.6 (22) | 1.7 (10) | 1.8 ( 4) | 2.5 (12) | 1.7 ( 7) | 1.5 (21) | 1.2 ( 6) | 12.1 (11) | A B C D E F |
| SW 900 | 9 | 1.7 ( 8) | 1.8 ( 5) | 1.8 ( 9) | 2.5 (12) | 1.6 (22) | 1.6 (16) | 1.1 (19) | 12.1 (12) | A B C D E F |
| FGI R66Bx311 | 6 | 1.5 (38) | 1.7 (10) | 1.8 (10) | 2.4 (21) | 1.8 ( 4) | 1.7 (10) | 1.1 (19) | 12.0 (13) | A B C D E F |
| SW 910 | 9 | 1.6 (22) | 1.8 ( 7) | 1.6 (36) | 2.3 (38) | 1.7 (14) | 1.5 (19) | 1.1 (25) | 11.6 (22) | B C D E F G H |
| SW 9107 | 9 | 1.4 (47) | 1.6 (28) | 1.8 ( 8) | 2.2 (49) | 1.8 ( 3) | 1.7 (12) | 1.1 (29) | 11.5 (23) | B C D E F G H |
| FGI R57K337 | 4 | 1.5 (44) | 1.6 (31) | 1.8 (10) | 2.3 (41) | 1.6 (17) | 1.7 (12) | 1.0 (39) | 11.5 (24) | B C D E F G H |
| SW 8105 | 8 | 1.4 (48) | 1.5 (43) | 1.5 (39) | 2.6 ( 9) | 1.7 (12) | 1.5 (31) | 1.2 ( 4) | 11.4 (29) | C D E F G H |
| FGI R97T715 | 10 | 1.5 (37) | 1.6 (22) | 1.6 (24) | 2.4 (24) | 1.5 (29) | 1.4 (40) | 1.1 (16) | 11.3 (31) | C D E F G H |
| FGI R57W213 | 5 | 1.6 (18) | 1.6 (23) | 1.6 (27) | 2.5 (17) | 1.3 (46) | 1.4 (38) | 1.1 (27) | 11.2 (34) | D E F G H I |
| FGI R65BD279 | 7 | 1.5 (39) | 1.6 (36) | 1.6 (36) | 2.4 (21) | 1.5 (35) | 1.4 (41) | 1.1 (19) | 11.1 (36) | D E F G H I |
| FGI R96Bx308 | 9 | 1.6 (13) | 1.5 (42) | 1.6 (31) | 2.4 (26) | 1.4 (45) | 1.4 (38) | 1.1 (27) | 11.1 (37) | D E F G H I |
| FGI R56Bx214 | 4 | 1.5 (40) | 1.7 (20) | 1.6 (28) | 2.4 (26) | 1.4 (44) | 1.4 (43) | 1.1 (35) | 11.1 (38) | D E F G H I |
| SW 9106 | 9 | 1.6 (32) | 1.6 (28) | 1.5 (47) | 2.4 (31) | 1.5 (30) | 1.4 (44) | 1.0 (44) | 11.0 (43) | E F G H I J |
| FGI R57K138 | 5 | 1.4 (50) | 1.4 (48) | 1.4 (49) | 2.0 (51) | 1.3 (49) | 1.4 (46) | 1.0 (48) | 9.8 (50) | J |
| MEAN | | 1.59 | 1.62 | 1.64 | 2.44 | 1.56 | 1.51 | 1.11 | 11.48 | |
| CV | | 11.3 | 17.1 | 15.1 | 13.0 | 13.1 | 14.6 | 12.5 | 9.2 | |
| LSD (0.1) | | 0.21 | NS | NS | NS | 0.24 | 0.26 | NS | 1.26 | |

Trial seeded at 25 lb/acre viable seed on Stnislaus sandy soil at Stanislaus Farm Supply, Modesto CA.

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

FD = Fall Dormancy reported by seed companies.

Cuf 101 was included in this trial, but the data was eliminated due to doubts about the source of the seed.

**TABLE 7. 2012-2014 YIELDS, MODESTO ALFALFA CULTIVAR TRIAL. TRIAL PLANTED NOV 7, 2011**

| | | 2012 Yield | 2013 Yield | 2014 Yield | Average | |
|---|---|---|---|---|---|---|
| | FD | | Dry t/a | | | |
| **Released Varieties** | | | | | | |
| Westar | 8 | 6.3 ( 4) | 16.0 ( 1) | 13.1 ( 1) | 11.8 ( 1) | A |
| Integra 8600 | 6 | 6.2 ( 7) | 15.1 ( 4) | 12.2 ( 7) | 11.1 ( 4) | A B C D |
| DS919 | 9 | 5.8 (16) | 14.5 (11) | 12.7 ( 2) | 11.0 ( 5) | A B C D E |
| AmeriStand 803T | 8 | 5.9 (14) | 14.8 ( 6) | 12.3 ( 4) | 11.0 ( 6) | A B C D E F |
| Saltana | 9 | 6.1 (10) | 14.8 ( 7) | 12.2 ( 5) | 11.0 ( 7) | A B C D E F |
| DS815 | 8 | 6.0 (11) | 14.8 ( 8) | 11.8 (19) | 10.9 ( 9) | B C D E F G |
| Pacifico | 8 | 5.7 (28) | 14.6 ( 9) | 12.2 ( 8) | 10.8 (10) | B C D E F G |
| Artesia Sunrise | 7 | 6.4 ( 2) | 14.4 (12) | 11.6 (21) | 10.8 (11) | B C D E F G |
| Arriba II (EM-09) | 6 | 6.3 ( 3) | 14.5 (10) | 11.4 (27) | 10.8 (12) | B C D E F G H |
| AmeriStand 901TS | 9 | 5.8 (17) | 14.0 (19) | 12.2 ( 6) | 10.7 (13) | B C D E F G H I |
| 4C810 | 8 | 5.7 (25) | 14.2 (16) | 11.9 (14) | 10.6 (14) | B C D E F G H I J |
| La Jolla | 9 | 6.2 ( 8) | 13.9 (27) | 11.6 (20) | 10.6 (15) | B C D E F G H I J |
| Integra 8800 | 8 | 5.7 (30) | 14.1 (18) | 11.9 (16) | 10.5 (17) | B C D E F G H I J K |
| DS611 | 6 | 5.9 (15) | 14.2 (15) | 11.5 (25) | 10.5 (18) | B C D E F G H I J K |
| Arriba II(Optimize Gold+) | 6 | 5.7 (27) | 14.0 (26) | 11.9 (15) | 10.5 (19) | B C D E F G H I J K L |
| Tango | 6 | 6.2 ( 6) | 14.0 (24) | 11.3 (32) | 10.5 (20) | B C D E F G H I J K L |
| Arriba II | 6 | 5.6 (32) | 14.0 (21) | 11.8 (17) | 10.5 (21) | B C D E F G H I J K L |
| Transition 6.1 | 6 | 6.1 ( 9) | 14.0 (23) | 11.4 (28) | 10.5 (22) | B C D E F G H I J K L |
| Dura 843 | 8 | 6.0 (12) | 14.1 (17) | 11.3 (33) | 10.5 (24) | C D E F G H I J K L |
| 6610N | 6 | 5.8 (24) | 14.0 (22) | 11.4 (26) | 10.4 (27) | D E F G H I J K L M |
| Catalina | 9 | 5.4 (42) | 13.6 (33) | 12.1 ( 9) | 10.4 (28) | D E F G H I J K L M |
| GrandSlam | 8 | 5.5 (39) | 13.7 (32) | 11.8 (18) | 10.3 (29) | D E F G H I J K L M |
| WL 454HQ.RR | 6 | 5.8 (23) | 14.0 (20) | 10.7 (47) | 10.2 (32) | F G H I J K L M N |
| 6R100 | 6 | 6.0 (13) | 13.3 (34) | 11.0 (40) | 10.1 (35) | G H I J K L M N O |
| Revolt | 6 | 5.6 (31) | 13.0 (40) | 11.2 (35) | 9.9 (36) | H I J K L M N O P |
| HybridForce-800 | 8 | 5.7 (29) | 13.2 (36) | 11.0 (41) | 9.9 (37) | H I J K L M N O P |
| DKA65-10RR | 6 | 5.7 (26) | 13.0 (42) | 11.0 (39) | 9.9 (39) | I J K L M N O P |
| Desert Sun 8.10RR | 8 | 5.5 (35) | 13.0 (41) | 10.9 (44) | 9.8 (41) | J K L M N O P Q |
| Dura 512 | 5 | 5.8 (18) | 12.7 (44) | 10.9 (45) | 9.8 (42) | J K L M N O P Q |
| WL 440HQ | 6 | 5.8 (22) | 12.9 (43) | 10.7 (46) | 9.8 (43) | J K L M N O P Q |
| WL 550.RR | 8 | 5.4 (43) | 12.7 (45) | 11.0 (42) | 9.7 (45) | L M N O P Q |
| 8R100 | 8.5 | 5.1 (50) | 12.3 (48) | 11.4 (30) | 9.6 (47) | M N O P Q |
| Trifecta | 4 | 5.5 (40) | 11.9 (50) | 10.7 (48) | 9.4 (48) | N O P Q |
| Trifecta II | 4 | 5.5 (41) | 12.2 (49) | 9.8 (51) | 9.1 (50) | P Q |
| Gunner | 5 | 5.3 (46) | 11.7 (51) | 10.0 (49) | 9.0 (51) | Q |
| **Experimental Varieties** | | | | | | |
| DS098217 | 7 | 6.4 ( 1) | 15.0 ( 5) | 12.6 ( 3) | 11.3 ( 2) | A B |
| FGI R97T710 | 9 | 6.3 ( 5) | 15.4 ( 2) | 12.1 (10) | 11.3 ( 3) | A B C |
| FGI R66Bx311 | 6 | 5.8 (21) | 15.1 ( 3) | 12.0 (13) | 11.0 ( 8) | A B C D E F |
| FGI R57K337 | 4 | 5.8 (20) | 14.4 (14) | 11.5 (24) | 10.6 (16) | B C D E F G H I J |
| SW 920 | 9 | 5.5 (38) | 13.8 (29) | 12.1 (11) | 10.5 (23) | C D E F G H I J K L |
| SW 9107 | 9 | 5.4 (44) | 14.4 (13) | 11.5 (23) | 10.4 (25) | C D E F G H I J K L M |
| SW 900 | 9 | 5.2 (49) | 14.0 (25) | 12.1 (12) | 10.4 (26) | C D E F G H I J K L M |
| SW 8105 | 8 | 5.6 (34) | 13.8 (28) | 11.4 (29) | 10.3 (30) | E F G H I J K L M |
| SW 910 | 9 | 5.2 (48) | 13.7 (31) | 11.6 (22) | 10.2 (31) | F G H I J K L M N |
| FGI R57W213 | 5 | 5.8 (19) | 13.3 (35) | 11.2 (34) | 10.1 (33) | G H I J K L M N O |
| FGI R97T715 | 10 | 5.2 (47) | 13.8 (30) | 11.3 (31) | 10.1 (34) | G H I J K L M N O |
| FGI R65BD279 | 7 | 5.5 (37) | 13.1 (39) | 11.1 (36) | 9.9 (38) | H I J K L M N O P |
| FGI R96Bx308 | 9 | 5.4 (45) | 13.1 (38) | 11.1 (37) | 9.9 (40) | I J K L M N O P |
| FGI R56Bx214 | 4 | 5.6 (33) | 12.4 (47) | 11.1 (38) | 9.7 (44) | K L M N O P Q |
| SW 9106 | 9 | 4.9 (51) | 13.1 (37) | 11.0 (43) | 9.7 (46) | L M N O P Q |
| FGI R57K138 | 5 | 5.5 (36) | 12.6 (46) | 9.8 (50) | 9.3 (49) | O P Q |
| MEAN | | 5.73 | 13.77 | 11.48 | 10.33 | |
| CV | | 9.0 | 10.4 | 9.2 | 7.0 | |
| LSD (0.1) | | 0.61 | 1.70 | 1.26 | 0.85 | |

Trial seeded at 25 lb/acre viable seed on Stnislaus sandy soil at Stanislaus Farm Supply, Modesto CA.

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

FD = Fall Dormancy reported by seed companies.

Cuf 101 was included in this trial, but the data was eliminated due to doubts about the source of the seed.

**TABLE 8. 2014 YIELDS, UC KEARNEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED SEPT. 18, 2013**

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 23-Apr | 21-May | 18-Jun | 16-Jul | 13-Aug | 15-Sep | 17-Oct | TOTAL | CUF 101 |
| | FD | Dry t/a | | | | | | | | % |
| **Released Varieties** | | | | | | | | | | |
| DG 9212 | 9 | 2.4 ( 11) | 1.9 ( 20) | 2.3 ( 5) | 2.1 ( 4) | 2.0 ( 1) | 2.0 ( 4) | 1.6 ( 12) | 14.4 ( 1) | 109.7 |
| 6906N | 9 | 2.3 ( 17) | 2.0 ( 5) | 2.3 ( 3) | 2.1 ( 6) | 1.8 ( 24) | 2.0 ( 6) | 1.7 ( 6) | 14.2 ( 2) | 108.1 |
| 6015R | 10 | 2.4 ( 13) | 2.0 ( 6) | 2.2 ( 13) | 2.1 ( 3) | 1.9 ( 6) | 2.1 ( 3) | 1.4 ( 35) | 14.1 ( 5) | 107.1 |
| WL 662HQ.RR | 9 | 2.6 ( 2) | 1.9 ( 33) | 1.9 ( 49) | 2.1 ( 5) | 1.8 ( 22) | 2.0 ( 5) | 1.7 ( 5) | 14.0 ( 6) | 107.0 |
| Catalina (OGP+QR) | 9 | 2.5 ( 6) | 1.9 ( 26) | 2.2 ( 19) | 2.0 ( 22) | 1.7 ( 31) | 1.9 ( 22) | 1.9 ( 3) | 14.0 ( 7) | 106.5 |
| Catalina (OGP) | 9 | 2.3 ( 21) | 1.9 ( 15) | 2.3 ( 6) | 2.1 ( 9) | 1.8 ( 10) | 2.0 ( 9) | 1.5 ( 25) | 13.9 ( 8) | 106.2 |
| WL552HQ.RR | 10 | 2.8 ( 1) | 1.8 ( 49) | 2.0 ( 34) | 1.9 ( 28) | 1.7 ( 30) | 1.9 ( 28) | 1.6 ( 10) | 13.8 ( 9) | 105.0 |
| WL 550 RR | 8 | 2.4 ( 8) | 1.9 ( 34) | 2.2 ( 7) | 2.0 ( 25) | 1.8 ( 12) | 1.9 ( 25) | 1.5 ( 22) | 13.7 ( 10) | 104.6 |
| Ameristand 901TS | 9 | 2.1 ( 46) | 1.8 ( 45) | 2.0 ( 40) | 2.2 ( 2) | 1.7 ( 39) | 2.1 ( 2) | 1.9 ( 2) | 13.7 ( 11) | 104.5 |
| AR-370 | 10 | 2.3 ( 23) | 2.0 ( 9) | 2.0 ( 32) | 2.0 ( 17) | 1.8 ( 14) | 1.9 ( 17) | 1.6 ( 13) | 13.6 ( 15) | 103.9 |
| Ameristand 915TS RR | 9 | 2.3 ( 25) | 1.9 ( 18) | 2.2 ( 11) | 2.0 ( 13) | 1.9 ( 9) | 1.9 ( 13) | 1.4 ( 37) | 13.6 ( 16) | 103.7 |
| Integra 8800 | 8 | 2.3 ( 24) | 1.9 ( 21) | 2.2 ( 20) | 1.9 ( 33) | 1.8 ( 27) | 1.8 ( 33) | 1.6 ( 14) | 13.4 ( 19) | 102.3 |
| RRALF 9R100 | 9 | 1.9 ( 54) | 1.8 ( 38) | 2.2 ( 9) | 2.0 ( 18) | 1.9 ( 3) | 1.9 ( 18) | 1.7 ( 8) | 13.4 ( 21) | 101.9 |
| Saltana | 9 | 2.0 ( 50) | 1.9 ( 19) | 2.0 ( 38) | 2.0 ( 14) | 1.8 ( 15) | 1.9 ( 14) | 1.6 ( 10) | 13.4 ( 22) | 101.8 |
| Catalina (EM) | 9 | 2.2 ( 33) | 1.9 ( 27) | 2.2 ( 20) | 1.9 ( 26) | 1.8 ( 28) | 1.9 ( 26) | 1.6 ( 20) | 13.4 ( 23) | 101.8 |
| 6015R | 10 | 2.2 ( 28) | 1.8 ( 48) | 2.2 ( 15) | 2.0 ( 20) | 1.9 ( 7) | 1.9 ( 20) | 1.4 ( 36) | 13.4 ( 24) | 101.8 |
| Catalina (QR) | 9 | 2.2 ( 27) | 1.9 ( 36) | 2.2 ( 10) | 2.0 ( 15) | 1.7 ( 33) | 1.9 ( 15) | 1.4 ( 48) | 13.3 ( 25) | 101.1 |
| Sun Quest | 9 | 2.0 ( 48) | 1.9 ( 35) | 2.1 ( 22) | 2.0 ( 19) | 1.8 ( 20) | 1.9 ( 19) | 1.5 ( 23) | 13.2 ( 27) | 100.9 |
| SW9628 | 9 | 2.0 ( 53) | 2.0 ( 2) | 2.2 ( 16) | 2.0 ( 21) | 1.7 ( 40) | 1.9 ( 21) | 1.5 ( 30) | 13.2 ( 29) | 100.5 |
| WL 662HQ.RR | 9 | 2.1 ( 44) | 1.9 ( 24) | 2.0 ( 35) | 1.9 ( 37) | 1.9 ( 5) | 1.8 ( 37) | 1.6 ( 17) | 13.2 ( 30) | 100.3 |
| Ameristand 915TS RR | 9 | 2.4 ( 15) | 1.9 ( 22) | 1.9 ( 48) | 1.8 ( 40) | 1.8 ( 11) | 1.8 ( 40) | 1.4 ( 38) | 13.1 ( 32) | 100.1 |
| Cuf 101 | 9 | 2.3 ( 19) | 1.7 ( 53) | 2.0 ( 32) | 2.2 ( 1) | 1.6 ( 51) | 2.1 ( 1) | 1.3 ( 51) | 13.1 ( 33) | 100.0 |
| PGI 908s | 9 | 2.2 ( 38) | 1.9 ( 14) | 2.2 ( 11) | 1.9 ( 30) | 1.6 ( 50) | 1.8 ( 30) | 1.5 ( 32) | 13.1 ( 34) | 99.9 |
| WL552HQ.RR | 10 | 2.4 ( 10) | 1.9 ( 29) | 2.0 ( 44) | 1.8 ( 44) | 1.7 ( 35) | 1.8 ( 44) | 1.5 ( 33) | 13.0 ( 36) | 99.4 |
| SW8421-S | 8 | 2.1 ( 47) | 1.8 ( 39) | 2.1 ( 26) | 2.1 ( 7) | 1.7 ( 37) | 2.0 ( 7) | 1.1 ( 54) | 12.9 ( 38) | 98.6 |
| RRALF 9R100 | 9 | 2.6 ( 4) | 1.8 ( 41) | 1.7 ( 53) | 1.7 ( 49) | 1.8 ( 21) | 1.7 ( 49) | 1.6 ( 16) | 12.9 ( 39) | 98.6 |
| WL656HQ | 9 | 2.2 ( 39) | 2.0 ( 10) | 2.0 ( 36) | 1.8 ( 46) | 1.7 ( 43) | 1.7 ( 46) | 1.5 ( 27) | 12.8 ( 45) | 97.5 |
| WL 550 RR | 8 | 2.4 ( 16) | 1.8 ( 47) | 1.7 ( 54) | 1.7 ( 50) | 1.8 ( 29) | 1.7 ( 50) | 1.8 ( 4) | 12.8 ( 46) | 97.3 |
| Supersonic | 9 | 2.1 ( 43) | 1.8 ( 46) | 1.9 ( 51) | 1.8 ( 41) | 1.7 ( 38) | 1.8 ( 41) | 1.5 ( 28) | 12.6 ( 49) | 96.1 |
| Catalina | 9 | 2.0 ( 51) | 1.7 ( 52) | 2.0 ( 45) | 1.9 ( 35) | 1.7 ( 41) | 1.8 ( 35) | 1.1 ( 53) | 12.2 ( 53) | 93.3 |
| Ameristand 445NT | 4 | 2.1 ( 42) | 1.9 ( 32) | 1.7 ( 52) | 1.6 ( 54) | 1.4 ( 54) | 1.5 ( 54) | 1.4 ( 40) | 11.7 ( 54) | 89.3 |
| **Experimental Varieties** | | | | | | | | | | |
| FG 106T701 | 10 | 2.4 ( 9) | 2.0 ( 11) | 2.1 ( 28) | 2.0 ( 12) | 2.0 ( 2) | 2.0 ( 12) | 1.7 ( 9) | 14.1 ( 3) | 107.6 |
| SW9108 | 9 | 2.3 ( 25) | 2.0 ( 7) | 2.3 ( 1) | 2.1 ( 8) | 1.9 ( 4) | 2.0 ( 8) | 1.6 ( 18) | 14.1 ( 4) | 107.3 |
| SW8341 | 8 | 2.3 ( 19) | 1.9 ( 23) | 2.0 ( 38) | 2.0 ( 16) | 1.9 ( 8) | 1.9 ( 16) | 1.7 ( 7) | 13.7 ( 12) | 104.4 |
| RD121 | 10 | 2.4 ( 14) | 2.0 ( 8) | 2.3 ( 4) | 2.0 ( 23) | 1.7 ( 32) | 1.9 ( 23) | 1.5 ( 29) | 13.7 ( 13) | 104.3 |
| CW058071 | 8 | 2.4 ( 7) | 2.0 ( 1) | 2.3 ( 2) | 2.0 ( 10) | 1.5 ( 52) | 2.0 ( 10) | 1.3 ( 49) | 13.7 ( 14) | 104.2 |
| Vulcan | 9 | 2.2 ( 31) | 1.9 ( 31) | 2.2 ( 16) | 1.9 ( 28) | 1.6 ( 48) | 1.9 ( 28) | 1.9 ( 1) | 13.6 ( 17) | 103.3 |
| FG 98T812 | 10 | 2.3 ( 18) | 1.9 ( 16) | 2.2 ( 8) | 2.0 ( 24) | 1.8 ( 13) | 1.9 ( 24) | 1.4 ( 47) | 13.5 ( 18) | 102.8 |
| UC 417 | 9 | 2.6 ( 3) | 2.0 ( 3) | 2.0 ( 46) | 1.8 ( 47) | 1.8 ( 18) | 1.7 ( 47) | 1.6 ( 15) | 13.4 ( 20) | 102.2 |
| AR-12 | 9 | 2.1 ( 45) | 1.8 ( 42) | 2.1 ( 23) | 2.0 ( 11) | 1.8 ( 26) | 2.0 ( 11) | 1.4 ( 39) | 13.2 ( 26) | 101.0 |
| 98T811 | 9 | 2.4 ( 12) | 2.0 ( 12) | 2.1 ( 27) | 1.9 ( 38) | 1.7 ( 36) | 1.8 ( 38) | 1.4 ( 42) | 13.2 ( 28) | 100.9 |
| SW9106 | 9 | 2.2 ( 30) | 1.9 ( 16) | 2.2 ( 18) | 1.8 ( 45) | 1.8 ( 23) | 1.7 ( 45) | 1.5 ( 24) | 13.1 ( 31) | 100.2 |
| SW1037 | 10 | 2.2 ( 35) | 2.0 ( 4) | 2.0 ( 47) | 1.9 ( 27) | 1.6 ( 49) | 1.9 ( 27) | 1.5 ( 25) | 13.1 ( 35) | 99.7 |
| CW060046 | 10 | 2.1 ( 41) | 1.8 ( 43) | 2.2 ( 14) | 1.9 ( 36) | 1.8 ( 19) | 1.8 ( 36) | 1.4 ( 41) | 13.0 ( 37) | 99.2 |
| UC 419 | 9 | 2.1 ( 40) | 1.9 ( 13) | 2.1 ( 25) | 1.7 ( 52) | 1.8 ( 17) | 1.6 ( 52) | 1.5 ( 21) | 12.9 ( 40) | 98.3 |
| AR-380 | 9 | 2.2 ( 36) | 1.8 ( 37) | 2.1 ( 29) | 1.9 ( 31) | 1.8 ( 25) | 1.8 ( 31) | 1.3 ( 50) | 12.9 ( 41) | 98.3 |
| UC 101 | 9 | 2.2 ( 32) | 1.8 ( 44) | 2.1 ( 24) | 1.9 ( 34) | 1.7 ( 45) | 1.8 ( 34) | 1.4 ( 46) | 12.9 ( 42) | 98.2 |
| 108T813 | 9 | 2.0 ( 52) | 1.8 ( 40) | 2.1 ( 31) | 1.9 ( 32) | 1.8 ( 16) | 1.8 ( 32) | 1.5 ( 34) | 12.9 ( 43) | 98.2 |
| SW7339 | 7 | 2.2 ( 34) | 1.9 ( 30) | 2.0 ( 43) | 1.8 ( 43) | 1.7 ( 34) | 1.8 ( 43) | 1.4 ( 43) | 12.8 ( 44) | 97.5 |
| RD132 | 8 | 2.0 ( 48) | 1.9 ( 25) | 1.9 ( 50) | 1.8 ( 42) | 1.6 ( 47) | 1.8 ( 42) | 1.6 ( 18) | 12.6 ( 47) | 96.2 |
| UC 418 | 9 | 2.2 ( 29) | 1.9 ( 28) | 2.0 ( 37) | 1.9 ( 39) | 1.6 ( 46) | 1.8 ( 39) | 1.2 ( 52) | 12.6 ( 48) | 96.2 |
| NeMex Melton | 7 | 2.6 ( 5) | 1.8 ( 50) | 2.0 ( 42) | 1.7 ( 48) | 1.4 ( 53) | 1.7 ( 48) | 1.4 ( 45) | 12.6 ( 50) | 96.0 |
| UC 416 | 9 | 2.2 ( 37) | 1.7 ( 51) | 2.1 ( 30) | 1.7 ( 51) | 1.7 ( 44) | 1.6 ( 51) | 1.5 ( 31) | 12.4 ( 51) | 94.9 |
| SW9107 | 9 | 2.3 ( 22) | 1.7 ( 54) | 2.0 ( 41) | 1.7 ( 53) | 1.7 ( 42) | 1.6 ( 53) | 1.4 ( 43) | 12.3 ( 52) | 93.8 |
| MEAN | | 2.26 | 1.88 | 2.08 | 1.92 | 1.76 | 1.85 | 1.51 | 13.25 | |
| CV | | 14.8 | 7.5 | 11.9 | 14.4 | 12.4 | 14.4 | 24.1 | 8.3 | |
| LSD (0.1) | | NS | 0.17 | NS | NS | NS | NS | NS | NS | |

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. 2014 YIELDS, UC IMPERIAL VALLEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED OCT 8, 2012**

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10-Mar | 4-Apr | 8-May | 5-Jun | 3-Jul | 31-Jul | 28-Aug | 2-Oct | TOTAL | | CUF 10 |
| | FD | | | | | Dry t/a | | | | | | % |
| **Released Varieties** | | | | | | | | | | | | |
| AmeriStand 901TS(Opt) | 9 | 1.2 ( 2) | 1.1 ( 1) | 1.7 ( 3) | 2.5 ( 1) | 2.0 ( 3) | 1.2 ( 3) | 0.7 ( 8) | 0.4 (19) | 10.9 ( 1) | A | 111.4 |
| FGI 118T816 | 9 | 1.2 ( 1) | 1.1 ( 8) | 1.6 (28) | 2.2 (17) | 2.0 ( 1) | 1.3 ( 2) | 0.8 ( 1) | 0.6 ( 3) | 10.9 ( 2) | A | 111.2 |
| Catalina | 9 | 1.1 (11) | 1.1 ( 4) | 1.7 (12) | 2.5 ( 2) | 2.0 ( 2) | 1.2 ( 6) | 0.7 ( 4) | 0.5 (11) | 10.8 ( 3) | A B | 110.6 |
| FGI 96T706 | 9 | 1.1 ( 9) | 1.1 ( 2) | 1.7 (16) | 2.2 (29) | 1.9 ( 5) | 1.3 ( 1) | 0.8 ( 2) | 0.6 ( 4) | 10.7 ( 4) | A B C | 110.0 |
| Excelente HQML | 9 | 1.2 ( 5) | 1.1 ( 6) | 1.8 ( 2) | 2.3 (10) | 1.9 ( 6) | 1.2 (14) | 0.7 ( 7) | 0.4 (20) | 10.5 ( 5) | A B C D | 107.5 |
| Un Padre | 9 | 1.2 ( 7) | 1.1 (10) | 1.7 ( 9) | 2.2 (15) | 1.8 (15) | 1.2 (12) | 0.7 ( 3) | 0.6 ( 1) | 10.5 ( 6) | A B C D | 107.4 |
| CW 080046 | 9 | 1.2 ( 3) | 1.1 (13) | 1.7 (10) | 2.3 ( 6) | 1.9 ( 4) | 1.2 (13) | 0.6 (18) | 0.5 (12) | 10.5 ( 8) | A B C D | 107.4 |
| CW 1010 | 9 | 1.1 (21) | 1.0 (24) | 1.7 ( 5) | 2.3 ( 8) | 1.9 ( 7) | 1.2 ( 7) | 0.6 (15) | 0.5 (16) | 10.3 (10) | A B C D E | 105.6 |
| FGI 106T701 | 9 | 1.1 (24) | 1.1 (11) | 1.7 ( 8) | 2.3 ( 7) | 1.8 (20) | 1.2 (11) | 0.7 ( 6) | 0.5 (15) | 10.2 (12) | A B C D E | 104.8 |
| UC Cibola | 9 | 1.1 (15) | 1.1 (15) | 1.7 ( 4) | 2.2 (14) | 1.8 (16) | 1.1 (19) | 0.6 (20) | 0.4 (18) | 10.1 (13) | A B C D E | 103.5 |
| Highline | 9 | 1.0 (28) | 1.1 ( 9) | 1.7 (17) | 2.4 ( 5) | 1.8 (19) | 1.1 (15) | 0.6 (16) | 0.4 (30) | 10.1 (14) | A B C D E | 103.4 |
| AmeriStand 901TS | 9 | 1.1 (21) | 1.1 (12) | 1.6 (32) | 2.3 (11) | 1.9 (10) | 1.2 ( 9) | 0.7 (13) | 0.4 (27) | 10.1 (15) | A B C D E | 103.1 |
| UC Impalo | 9 | 1.1 (17) | 1.1 (14) | 1.6 (24) | 2.2 (24) | 1.8 (23) | 1.1 (25) | 0.6 (17) | 0.6 ( 5) | 10.0 (16) | A B C D E | 102.8 |
| Sun Quest | 6 | 1.1 ( 8) | 1.0 (19) | 1.7 (14) | 2.2 (22) | 1.8 (24) | 1.1 (26) | 0.7 (11) | 0.5 (14) | 10.0 (17) | B C D E | 102.5 |
| 4N900 | 9 | 1.1 (25) | 1.0 (18) | 1.7 (15) | 2.2 (13) | 1.9 (12) | 1.2 (10) | 0.6 (21) | 0.4 (36) | 10.0 (18) | B C D E | 102.3 |
| Westar | 9 | 1.1 (23) | 1.0 (27) | 1.7 (13) | 2.4 ( 4) | 1.9 (11) | 1.0 (31) | 0.5 (35) | 0.4 (23) | 10.0 (20) | B C D E | 102.0 |
| AmeriStand 901TS(EMD) | 9 | 1.1 (12) | 1.1 ( 7) | 1.6 (20) | 2.0 (36) | 1.7 (29) | 1.2 ( 5) | 0.6 (23) | 0.5 (13) | 9.9 (21) | C D E | 101.5 |
| WL 656HQ | 6 | 1.1 (14) | 1.0 (25) | 1.6 (26) | 2.2 (30) | 1.8 (21) | 1.1 (22) | 0.6 (14) | 0.4 (17) | 9.9 (22) | D E | 101.1 |
| Excelente XL | 9 | 1.0 (29) | 1.0 (30) | 1.6 (19) | 2.3 ( 9) | 1.7 (32) | 1.1 (17) | 0.6 (22) | 0.4 (25) | 9.8 (23) | D E F | 100.2 |
| Excelente Plus | 9 | 1.2 ( 6) | 1.0 (20) | 1.7 ( 7) | 2.2 (25) | 1.7 (33) | 1.0 (30) | 0.6 (29) | 0.4 (26) | 9.8 (24) | D E F | 100.1 |
| Tres Padres | 9 | 1.1 (19) | 1.0 (22) | 1.6 (31) | 2.1 (34) | 1.8 (26) | 1.1 (21) | 0.7 (12) | 0.5 ( 8) | 9.8 (25) | D E F | 100.0 |
| Cuf 101 | 9 | 1.0 (30) | 1.0 (29) | 1.6 (21) | 2.2 (19) | 1.8 (17) | 1.1 (20) | 0.6 (25) | 0.4 (31) | 9.8 (26) | D E F | 100.0 |
| Excelente 11 | 9 | 1.1 (20) | 1.0 (31) | 1.6 (25) | 2.2 (18) | 1.8 (22) | 1.0 (28) | 0.5 (32) | 0.4 (22) | 9.7 (28) | D E F | 99.5 |
| Saltana | 9 | 1.1 (27) | 1.1 (17) | 1.5 (36) | 2.1 (33) | 1.9 (13) | 1.0 (29) | 0.6 (19) | 0.5 (10) | 9.7 (29) | D E F | 99.2 |
| WL 712 | 10 | 1.1 (18) | 1.0 (33) | 1.7 (11) | 2.2 (16) | 1.7 (34) | 0.9 (34) | 0.5 (34) | 0.4 (34) | 9.5 (33) | E F | 97.2 |
| La Jolla | 9 | 1.0 (35) | 0.9 (35) | 1.5 (34) | 2.2 (26) | 1.6 (36) | 0.9 (35) | 0.6 (27) | 0.4 (32) | 9.0 (35) | F | 92.4 |
| HybridForce-800 | 9 | 0.9 (36) | 0.9 (36) | 1.6 (33) | 2.2 (28) | 1.7 (35) | 0.9 (36) | 0.5 (33) | 0.4 (21) | 9.0 (36) | F | 92.3 |
| **Experimental Varieties** | | | | | | | | | | | | |
| DS919 | 9 | 1.1 (13) | 1.1 ( 3) | 1.8 ( 1) | 2.4 ( 3) | 1.9 ( 8) | 1.1 (18) | 0.6 (24) | 0.4 (24) | 10.5 ( 7) | A B C D | 107.4 |
| UC-412 | 9 | 1.2 ( 4) | 1.1 ( 5) | 1.7 ( 6) | 2.3 (12) | 1.9 ( 9) | 1.2 ( 8) | 0.7 (10) | 0.5 ( 7) | 10.5 ( 9) | A B C D | 107.3 |
| UC-415 | 9 | 1.1 (10) | 1.0 (21) | 1.6 (27) | 2.2 (27) | 1.9 (14) | 1.2 ( 4) | 0.7 ( 5) | 0.5 ( 9) | 10.3 (11) | A B C D E | 105.1 |
| UC-409 | 9 | 1.1 (16) | 1.0 (28) | 1.6 (22) | 2.1 (31) | 1.8 (25) | 1.1 (16) | 0.6 (26) | 0.6 ( 2) | 10.0 (19) | B C D E | 102.1 |
| UC-411 | 9 | 1.0 (34) | 1.1 (16) | 1.6 (23) | 2.2 (21) | 1.8 (18) | 1.1 (23) | 0.6 (28) | 0.4 (33) | 9.7 (27) | D E F | 99.5 |
| UC-414 | 9 | 1.0 (32) | 1.0 (32) | 1.6 (29) | 2.2 (23) | 1.7 (28) | 1.1 (24) | 0.5 (30) | 0.4 (29) | 9.5 (30) | E F | 97.5 |
| UC-413 | 9 | 1.0 (33) | 0.9 (34) | 1.5 (35) | 2.0 (35) | 1.7 (30) | 1.1 (27) | 0.7 ( 9) | 0.6 ( 5) | 9.5 (31) | E F | 97.5 |
| UC-410 | 9 | 1.1 (25) | 1.0 (26) | 1.6 (18) | 2.1 (32) | 1.7 (27) | 1.0 (32) | 0.5 (36) | 0.4 (28) | 9.5 (32) | E F | 97.3 |
| DS1064 | 9 | 1.0 (31) | 1.0 (23) | 1.6 (30) | 2.2 (20) | 1.7 (31) | 1.0 (33) | 0.5 (31) | 0.4 (35) | 9.5 (34) | E F | 97.0 |
| MEAN | | 1.09 | 1.04 | 1.64 | 2.23 | 1.82 | 1.11 | 0.62 | 0.46 | 10.01 | | |
| CV | | 8.1 | 10.4 | 9.4 | 12.5 | 10.2 | 13.4 | 17.6 | 23.3 | 8.7 | | |
| LSD (0.1) | | 0.09 | 0.11 | NS | NS | 0.18 | 0.14 | 0.11 | 0.10 | 0.85 | | |

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.

TABLE 10. 2013-2014 YIELDS. UC IMPERIAL VALLEY ALFALFA CULTIVAR TRIAL. TRIAL PLANTED OCT 8, 2012.

| | | 2013 Yield | 2014 Yield | Average | | % Cuf 101 |
|---|---|---|---|---|---|---|
| | FD | | Dry t/a | | | % |
| **Released Varieties** | | | | | | |
| AmeriStand 901TS(Opt) | 9 | 16.0 ( 1) | 10.9 ( 1) | 13.4 ( 1) | A | 108.3 |
| Un Padre | 9 | 15.7 ( 4) | 10.5 ( 6) | 13.1 ( 4) | A B C | 105.8 |
| Catalina | 9 | 15.2 ( 9) | 10.8 ( 3) | 13.0 ( 5) | A B C D | 105.0 |
| FGI 96T706 | 9 | 15.2 ( 8) | 10.7 ( 4) | 13.0 ( 6) | A B C D | 104.8 |
| FGI 118T816 | 9 | 15.0 (17) | 10.9 ( 2) | 12.9 ( 7) | A B C D E | 104.5 |
| Excelente HQML | 9 | 15.2 (11) | 10.5 ( 5) | 12.9 ( 8) | A B C D E F | 103.8 |
| Highline | 9 | 15.5 ( 5) | 10.1 (14) | 12.8 ( 9) | A B C D E F G | 103.2 |
| CW 1010 | 9 | 15.2 (12) | 10.3 (10) | 12.8 (10) | A B C D E F G H | 102.9 |
| CW 080046 | 9 | 15.0 (22) | 10.5 ( 8) | 12.7 (12) | A B C D E F G H I | 102.6 |
| UC Cibola | 9 | 15.2 (13) | 10.1 (13) | 12.7 (13) | A B C D E F G H I | 102.1 |
| FGI 106T701 | 9 | 15.0 (21) | 10.2 (12) | 12.6 (14) | B C D E F G H I | 101.7 |
| Westar | 9 | 15.2 (10) | 10.0 (20) | 12.6 (15) | B C D E F G H I | 101.6 |
| Sun Quest | 6 | 15.1 (15) | 10.0 (17) | 12.6 (16) | B C D E F G H I | 101.3 |
| Tres Padres | 9 | 15.3 ( 6) | 9.8 (25) | 12.5 (17) | B C D E F G H I | 101.2 |
| AmeriStand 901TS | 9 | 14.9 (24) | 10.1 (15) | 12.5 (18) | B C D E F G H I J | 100.8 |
| Excelente Plus | 9 | 15.2 (14) | 9.8 (24) | 12.5 (19) | B C D E F G H I J | 100.7 |
| WL 656HQ | 6 | 15.0 (19) | 9.9 (22) | 12.5 (20) | B C D E F G H I J | 100.5 |
| UC Impalo | 9 | 14.8 (27) | 10.0 (16) | 12.4 (21) | B C D E F G H I J | 100.2 |
| 4N900 | 9 | 14.8 (26) | 10.0 (18) | 12.4 (22) | B C D E F G H I J | 100.1 |
| Cuf 101 | 9 | 15.0 (20) | 9.8 (26) | 12.4 (23) | B C D E F G H I J | 100.0 |
| Excelente 11 | 9 | 15.0 (16) | 9.7 (28) | 12.4 (24) | B C D E F G H I J | 99.9 |
| WL 712 | 10 | 15.0 (23) | 9.5 (33) | 12.2 (28) | D E F G H I J | 98.6 |
| Saltana | 9 | 14.6 (29) | 9.7 (29) | 12.2 (29) | E F G H I J | 98.1 |
| AmeriStand 901TS(EMD) | 9 | 14.4 (32) | 9.9 (21) | 12.1 (30) | F G H I J | 97.9 |
| Excelente XL | 9 | 14.1 (33) | 9.8 (23) | 11.9 (33) | I J K | 96.2 |
| HybridForce-800 | 9 | 13.6 (35) | 9.0 (36) | 11.3 (35) | K | 91.1 |
| La Jolla | 9 | 13.5 (36) | 9.0 (35) | 11.2 (36) | K | 90.7 |
| **Experimental Varieties** | | | | | | |
| DS919 | 9 | 15.9 ( 2) | 10.5 ( 7) | 13.2 ( 2) | A B | 106.3 |
| UC-412 | 9 | 15.8 ( 3) | 10.5 ( 9) | 13.1 ( 3) | A B C | 105.9 |
| UC-415 | 9 | 15.2 ( 7) | 10.3 (11) | 12.7 (11) | A B C D E F G H | 102.8 |
| UC-409 | 9 | 14.8 (28) | 10.0 (19) | 12.4 (25) | C D E F G H I J | 99.8 |
| UC-411 | 9 | 14.9 (25) | 9.7 (27) | 12.3 (26) | D E F G H I J | 99.3 |
| UC-414 | 9 | 15.0 (18) | 9.5 (30) | 12.3 (27) | D E F G H I J | 99.1 |
| DS1064 | 9 | 14.5 (30) | 9.5 (34) | 12.0 (31) | G H I J K | 96.8 |
| UC-410 | 9 | 14.4 (31) | 9.5 (32) | 12.0 (32) | H I J K | 96.6 |
| UC-413 | 9 | 13.9 (34) | 9.5 (31) | 11.7 (34) | J K | 94.5 |
| MEAN | | 14.95 | 10.01 | 12.48 | | |
| CV | | 5.9 | 8.7 | 6.6 | | |
| LSD (0.1) | | 0.86 | 0.85 | 0.81 | | |

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.

**TABLE 11. 2014 YIELDS, UC SCOTT VALLEY ALFALFA CUTIVAR TRIAL. TRIAL PLANTED 5/04/2012**

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

| | | Cut 1 | Cut 3 | YEAR | |
|---|---|---|---|---|---|
| | | 9-Jun | 10-Sep | TOTAL | |
| | FD | | Dry t/a | | |
| **Released Varieties** | | | | | |
| RRALF 4R200 | 5 | 4.6 ( 1) | 1.5 ( 1) | 6.1 ( 1) | A |
| RR Stratica | 3 | 4.5 ( 5) | 1.5 ( 6) | 6.0 ( 2) | A B |
| AmeriStand 415NT RR | 4 | 4.5 ( 3) | 1.4 ( 12) | 5.9 ( 3) | A B |
| 6547R | 5 | 4.4 ( 8) | 1.5 ( 5) | 5.9 ( 4) | A B C |
| RR Tonnica | 4 | 4.6 ( 2) | 1.3 ( 22) | 5.9 ( 5) | A B C |
| Mutiny | 4 | 4.5 ( 4) | 1.3 ( 19) | 5.9 ( 6) | A B C D |
| 6516R | 5 | 4.4 ( 11) | 1.5 ( 7) | 5.8 ( 8) | A B C D |
| Denali 4.10RR | 4 | 4.3 ( 13) | 1.5 ( 2) | 5.8 ( 9) | B C D E |
| DK44-16RR | 4 | 4.5 ( 7) | 1.3 ( 23) | 5.8 ( 10) | B C D E |
| AmeriStand 455TQ RR | 4 | 4.4 ( 9) | 1.3 ( 26) | 5.7 ( 15) | B C D E F G |
| 6497R | 4 | 4.3 ( 16) | 1.4 ( 11) | 5.7 ( 16) | B C D E F G |
| RR AphaTron | 4 | 4.3 ( 17) | 1.4 ( 9) | 5.7 ( 17) | B C D E F G |
| WL 355.RR.HQ | 4 | 4.2 ( 19) | 1.4 ( 13) | 5.6 ( 19) | D E F G H I |
| WL 372HQ.RR | 5 | 4.2 ( 20) | 1.3 ( 21) | 5.5 ( 20) | E F G H I J |
| WL 356HQ.RR | 4 | 4.1 ( 22) | 1.4 ( 16) | 5.5 ( 21) | F G H I J K |
| RR NemaStar | 4 | 4.1 ( 24) | 1.4 ( 15) | 5.5 ( 23) | G H I J K |
| RR Presteez | 5 | 4.1 ( 21) | 1.3 ( 28) | 5.4 ( 24) | H I J K |
| WL 367.RR.HQ | 4 | 4.1 ( 26) | 1.3 ( 24) | 5.4 ( 26) | H I J K |
| Consistency 4.10RR | 4 | 4.0 ( 27) | 1.3 ( 27) | 5.3 ( 27) | I J K |
| Integra 8401RR | 4 | 4.0 ( 29) | 1.3 ( 20) | 5.3 ( 28) | J K |
| Integra 8444RR | 4 | 4.0 ( 28) | 1.2 ( 29) | 5.2 ( 29) | K L |
| | | | | | |
| MEAN | | 4.28 | 1.37 | 5.64 | |
| CV | | 5.4 | 7.4 | 4.7 | |
| LSD (0.1) | | 0.25 | 0.11 | 0.29 | |

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.

Nine experimental lines were omitted from this table

Cut 2 data was lost-harvest taken July 24, 2014. The hay was too lodged to be able to harvest with a Carter plot harvester.

**TABLE 12. 2012-2014 YIELDS, UC SCOTT VALLEY ALFALFA CUTIVAR TRIAL. TRIAL PLANTED 5/04/2012**

| | | 2012 Yield | 2013 Yield | 2014 Yield | Average | |
|---|---|---|---|---|---|---|
| | FD | | Dry t/a | | | |
| **Released Varieties** | | | | | | |
| RRALF 4R200 | 5 | 3.4 ( 5) | 10.4 ( 1) | 6.1 ( 1) | 6.6 ( 1) | A |
| 6547R | 5 | 3.4 ( 4) | 10.4 ( 2) | 5.9 ( 4) | 6.6 ( 2) | A B |
| RR Stratica | 3 | 3.4 ( 6) | 9.9 ( 5) | 6.0 ( 2) | 6.4 ( 3) | B C |
| Denali 4.10RR | 4 | 3.3 (11) | 10.1 ( 3) | 5.8 ( 9) | 6.4 ( 4) | B C D |
| 6516R | 5 | 3.4 ( 8) | 9.8 ( 9) | 5.8 ( 8) | 6.3 ( 5) | C D E |
| Mutiny | 4 | 3.4 ( 7) | 9.7 (11) | 5.9 ( 6) | 6.3 ( 6) | C D E |
| AmeriStand 415NT RR | 4 | 3.2 (20) | 9.8 ( 7) | 5.9 ( 3) | 6.3 ( 8) | C D E F |
| RR Tonnica | 4 | 3.3 (14) | 9.8 ( 8) | 5.9 ( 5) | 6.3 ( 9) | C D E F |
| WL 372HQ.RR | 5 | 3.2 (21) | 9.8 ( 6) | 5.5 (20) | 6.2 (14) | E F G H I |
| DK44-16RR | 4 | 3.2 (22) | 9.6 (16) | 5.8 (10) | 6.2 (15) | E F G H I |
| RR AphaTron | 4 | 3.2 (25) | 9.6 (17) | 5.7 (17) | 6.2 (17) | E F G H I J |
| WL 356HQ.RR | 4 | 3.2 (17) | 9.7 (14) | 5.5 (21) | 6.1 (18) | F G H I J K |
| RR Presteez | 5 | 3.3 (13) | 9.5 (19) | 5.4 (24) | 6.1 (19) | G H I J K L |
| WL 355.RR.HQ | 4 | 3.2 (23) | 9.4 (21) | 5.6 (19) | 6.1 (20) | G H I J K L |
| AmeriStand 455TQ RR | 4 | 3.0 (30) | 9.3 (22) | 5.7 (15) | 6.0 (23) | H I J K L M |
| Consistency 4.10RR | 4 | 3.4 ( 3) | 9.3 (26) | 5.3 (27) | 6.0 (24) | I J K L M N |
| 6497R | 4 | 3.1 (28) | 9.1 (27) | 5.7 (16) | 6.0 (25) | J K L M N |
| RR NemaStar | 4 | 3.3 (16) | 9.1 (28) | 5.5 (23) | 5.9 (26) | K L M N |
| WL 367.RR.HQ | 4 | 3.4 (10) | 9.1 (29) | 5.4 (26) | 5.9 (27) | K L M N |
| Integra 8444RR | 4 | 3.2 (19) | 9.3 (23) | 5.2 (29) | 5.9 (28) | L M N |
| Integra 8401RR | 4 | 3.2 (24) | 9.1 (30) | 5.3 (28) | 5.8 (29) | M N |
| | | | | | | |
| MEAN | | 3.28 | 9.61 | 5.64 | 6.18 | |
| CV | | 8.1 | 3.7 | 4.7 | 3.0 | |
| LSD (0.1) | | NS | 0.38 | 0.29 | 0.20 | |

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.

Nine experimental lines were omitted from this table

Note: -2012 was establishment year(2 cuts)

- 2014: 3 cuts were taken; mid summer data rejected. The hay was too lodged to be able to harvest with a Carter plot harvester.

**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.

| | Rating Factor | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fall Dormancy | Spotted Alfalfa Aphid | Pea Aphid | Blue Alfalfa Aphid | Phytopthora Root Rot | Bacterial Wilt | Fusarium Wilt | Southern Anthracnose | Stem Nematode | Root Knot Nematode | Verticillium Wilt |
| **Production Zone** | **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 reistant 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 enviornmental 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.