The 2011 New Mexico Alfalfa Variety Test Report



Agricultural Experiment Station College of Agricultural, Consumer and Environmental Sciences

The 2011 New Mexico Alfalfa Variety Test Report

Leonard Lauriault, Ian Ray, Chris Pierce, Robert Flynn, Mick O'Neill, Tom Place, and John Idowu¹

Introduction

In 2011, 230,000 acres of alfalfa (*Medicago sativa*) were in production in New Mexico, up from 220,000 acres in 2010. Hay yields were estimated at 1.2 million tons. At a January through October 2011 average of \$223/ton (up from \$159 in 2010), estimated gross returns from 1.14 million tons of alfalfa hay produced in 2011 will total approximately \$267 million. This was an increase from the \$182 million received in 2010, strengthening alfalfa hay's position as New Mexico's No. 1 cash crop (New Mexico Agricultural Statistics Service, www.nass.usda.gov/nm). Alfalfa also is the legume of choice in irrigated perennial pastures. Whether used as pasture or hay, the value of alfalfa to New Mexico is greatly magnified by its contribution to livestock production and receipts from the sale of meat, milk, and other products generated by livestock enterprises.

Choosing a good alfalfa variety is a key step in establishing a highly productive stand of alfalfa, whether for hay or pasture. Differences between the highest- and lowest-yielding varieties in irrigated tests included in this report ranged from 1.03 to 2.31 tons per acre in 2011. If sold as hay, this translates to a difference in returns of \$230 to \$515 per acre due to variety, or an increase of at least \$50.6 million for the industry in 2011 alone.

This report, which is a collaborative effort of New Mexico State University scientists at agricultural science centers throughout the state, provides yield data for alfalfa varieties included in yield trials in New Mexico. While consistently high yields compared to other varieties over a number of years and locations within a region is the best indication of varietal adaptation and persistence, other factors should be considered in the variety selection process (see NMSU's Cooperative Extension Service Circular 654, Selecting alfalfa varieties for New Mexico). In addition to fall dormancy and winter hardiness, high levels of pest resistance are critical to protecting an alfalfa stand for long-term production. Alfalfa grown in New Mexico should have at least a resistant (R) rating for bacterial wilt, Fusarium wilt, anthracnose, Phytophthora root rot, spotted alfalfa aphid, blue alfalfa aphid, pea aphid, stem nematode, and southern rootknot nematode. Seed quality also should be high. Selecting an alfalfa variety based on seed cost is a gamble producers often lose. To be assured of achieving a longlasting, highly productive stand, buy either certified or Plant Variety Protected (PVP) seed, which guarantees the genetics and performance. The best choice of seed of any variety is one that was treated with a fungicide and nitrogen-fixing bacteria before it was bagged.

Description of Tests

Replicated alfalfa variety tests included in this report were conducted under research controls at NMSU's Agricultural Science Centers at Las Cruces (standard and limited irrigation studies sown in 2010), Artesia (2008), Los Lunas (2007 and 2009), and Farmington (2007 and 2009). Weather data for 2011 and the long-term averages from all locations are presented in table 1.

Yield data (on a dry matter basis) are presented in tables 2-8. Varieties are listed in order from highest to lowest average annual production. Yields are given by cutting for 2011 and by year for each production year. Statistical analyses were performed on all alfalfa yield data (including experimentals) to determine if the apparent differences are truly due to variety or just to chance. The variety with the highest numerical yield in each column is marked with two asterisks (**), and those varieties not significantly different from that variety are marked with one asterisk (*). Those are the varieties from which to make an initial selection. Otherwise, to determine if two varieties are truly different, compare the difference between the two varieties to the Least Significant Difference (LSD) at the bottom of the column. If the difference is equal or greater than the LSD, the varieties are truly different in yield when grown under the conditions at a given location. If NS is given for the LSD, there was no statistical difference between the highest and lowest yielding varieties. The Coefficient of Variation (CV), which is a measure of the variability of the data, is included for each column of means. Low variability (<20 percent) is desirable, and increased variability within a study results in higher CVs and larger LSDs. There might be a difference between previously published data and the data given in this publication for the same tests because of differences in the programs used for statistical analysis.

Table 9 summarizes information about proprietors, Roundup Ready genetics, fall dormancy, winter survival (measured in the northern United States), pest resistance, and yield performance across years and locations for all varieties currently included in NMSU's alfalfa variety testing program. Varieties are listed alphabetically by fall dormancy category. As in the data tables, the variety with the highest numerical yield in each column is marked with two asterisks (**), and those varieties not significantly different from that variety are marked with one asterisk (*). Remember good performance across several years and locations is the best indicator of broad adaptation, pest resistance, and persistence.

Seed labeled "common," "variety not stated," or "variety unknown", particularly that from other states, is of unknown genetic background and may or may not have the necessary disease or insect resistance. New Mexico Common and African Common seed used in all tests throughout the state has come from the same supplier and seed fields in New Mexico. Seed purchased from other dealers may or may not be of the same quality and performance.

Summary

Consistent production of high alfalfa yields is the result of selecting good varieties and implementing good management techniques. Soil fertility should be maintained at recommended levels based on soil tests, irrigation should be properly applied, weeds and insects should be controlled using appropriate cultural and/or chemical methods, and harvest management should allow sufficient time to restock root energy prior to winter. For dormant (FD 1 to 3) and semidormant (FD 4 to 6) varieties, a 6-week rest period before a dormancy-inducing freeze (27°F) is recommended to

¹Forage agronomist, NMSU Agricultural Science Center at Tucumcari; Alfalfa breeder, NMSU, Las Cruces; Forage research specialist, NMSU, Las Cruces; Extension agronomist, NMSU Agricultural Science Center at Artesia; Agronomist, NMSU Agricultural Science Center at Farmington; Farm/Ranch Superintendent, NMSU Agricultural Science Center at Los Lunas, and Extension Agronomist, Las Cruces, respectively.

allow plants to replenish root reserves for winter survival and initiate spring growth, after which harvesting might be done either mechanically or by grazing. Non-dormant (FD 7 to 9) varieties also might benefit from this rest period. Removing fall growth is beneficial to reducing weevil populations the following year as eggs are laid in and overwinter in stems. Harvesting established stands at early bloom would result in 3 to 5 cuttings per year before initiation of the rest period in most areas of New Mexico. More dormant varieties might not produce balable yields during the rest period; however, these can still be grazed. For further information about alfalfa management, refer to the other NMSU Cooperative Extension Service publications listed in table 10.

Acknowledgements

The authors express appreciation to the following for their significant contribution to The New Mexico Alfalfa Variety Testing Program by helping with planting, maintaining, harvesting, or other data collection, and data entry: Jason Box, Servando Bustillos, Patty Cooksey, Josh Foster, Charles Havlik, Calvin Henson, Jared Jennings, Shane Jennings, Leopoldo Hinojos, Ken Kohler, Manuel Moreno, Curtis Owen, Ruben Pacheco, Mario Segura, and the staff at University Communications who make publications such as this possible.

Location Elevation		Las C 383	ruces ¹ 2 ft.			Arte 336	esia 6 ft.			Los L 484	.unas 0 ft.			Farmi 557	ngton 7 ft.	
Latitude		32° ⁻	12' N			32° 4	45' N			34° 4	46' N			36° 4	41' N	
	Tem	o. (°F)	Preci	o. (in.)	Tem	p. (°F)	Preci	p. (in.)	Tem	o. (°F)	Preci	o. (in.)	Tem	o. (°F)	Preci	p. (in.)
Month	11	Avg.	11	Avg.	11	Avg.	11	Avg.	11	Avg.	11	Avg.	11	Avg.	11	Avg.
Nov-10	46	50	0.00	0.53	48	49	0.00	0.53	42	43	0.20	0.52	39	41	0.12	0.65
Dec-10	45	42	0.00	0.68	44	41	0.04	0.50	39	34	0.43	0.48	38	31	0.78	0.46
Jan-11	41	42	0.00	0.56	39	41	0.00	0.39	33	35	0.00	0.39	24	30	0.03	0.52
Feb-11	42	46	0.07	0.37	41	45	0.18	0.43	34	40	0.21	0.42	32	36	0.18	0.49
Mar-11	59	52	0.00	0.22	57	51	0.00	0.43	50	47	0.00	0.56	45	43	0.34	0.67
Apr-11	60	59	0.00	0.21	64	60	0.00	0.63	57	54	0.00	0.46	50	51	1.09	0.59
May-11	69	68	0.00	0.29	68	69	0.00	1.22	60	63	0.00	0.48	56	60	0.86	0.51
Jun-11	80	77	0.29	0.72	81	78	0.70	1.42	74	72	0.00	0.57	71	70	0.01	0.25
Jul-11	82	80	1.14	1.36	84	80	0.53	1.76	80	77	0.17	1.33	77	76	0.65	0.82
Aug-11	81	78	1.06	2.29	85	78	0.12	1.70	80	75	0.82	1.59	76	74	0.05	1.08
Sep-11	73	72	1.07	1.38	73	71	2.13	1.80	69	67	1.14	1.17	65	66	1.02	1.06
Oct-11	60	61	0.19	0.91	62	60	0.50	1.17	57	56	1.00	1.11	53	54	1.86	0.99
Annual	62	61	3.82	9.52	62	60	4.20	11.98	56	55	3.97	9.08	52	53	6.99	8.09

Table 1. Temperature and precipitation data for 2011 and the long-term averages for the New Mexico Alfalfa Variety Test locations.

¹Long-term averages for the Las Cruces test site are from NMSU's weather station, located approximately 5.5 miles to the north.

			2011 Ha	rvests			2011
Variety Name	27-Apr	26-May	24-Jun	28-Jul	31-Aug	13-Oct	Total
NM10-0307	1.72**	1.75*	1.70*	2.28*	2.04**	1.70*	11.19**
SuperSonic	1.33	1.69*	1.82**	2.27*	1.89*	1.78*	10.78*
NuMex Bill Melton	1.59*	1.62*	1.51	2.32**	2.01*	1.70*	10.75*
NM08251	1.50*	1.81**	1.68*	2.15*	1.89*	1.71*	10.73*
NM0306	1.37	1.55	1.65*	2.17*	2.02*	1.83**	10.59*
NM08244	1.51*	1.67*	1.68*	2.19*	1.84	1.57	10.46*
NM07240	1.25	1.56	1.69*	2.32**	1.96*	1.66*	10.44*
NM08241	1.28	1.51	1.68*	2.05*	1.91*	1.73*	10.15
59N59	1.13	1.50	1.52	2.22*	1.94*	1.81*	10.11
RD74	1.11	1.52	1.74*	2.20*	1.87*	1.66*	10.09
Wilson	1.48	1.55	1.48	2.08*	1.86*	1.59	10.03
CW058071	1.00	1.34	1.63*	2.30*	1.89*	1.76*	9.92
Dona Ana	1.42	1.50	1.46	2.04*	1.81	1.59	9.83
WL 656HQ	0.98	1.39	1.63*	2.13*	1.82	1.78*	9.73
PGI 908-S	1.06	1.38	1.74*	2.10*	1.79	1.63	9.70
56S82	1.40	1.44	1.50	1.98*	1.76	1.55	9.61
6010	1.09	1.40	1.77*	2.14*	1.66	1.44	9.49
WL 535HQ	1.01	1.31	1.51	2.03*	1.76	1.70	9.30
Mean	1.29	1.53	1.63	2.16	1.87	1.68	10.16
5% LSD	0.23	0.22	0.20	NS	0.19	0.18	0.87
CV%	12.63	10.02	8.46	8.81	7.19	7.38	6.06

Table 2. Dry matter yields (tons/acre) of alfalfa varieties sown October 8, 2010, at NMSU's Leyendecker Plant Science Research Center at Las Cruces and flood-irrigated every 14 days[†].

†Data were detrended using nearest neighbor analysis, and analyzed using analysis of variance.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD. NS means that there were no significant differences between the varieties within that column at the 5% level.

	,	<u> </u>	2011 Ha	rvests			2011
Variety Name	21-Apr	26-May	26-Jun	30-Jul	1-Sep	18-Oct‡	Total
NuMex Bill Melton	0.63*	1.25**	1.31**	1.17**	0.94**	1.42**	6.73**
NM08195	0.65*	1.11*	1.15*	1.05*	0.93*	1.42**	6.35*
NM07-0306	0.82**	1.18*	1.04*	0.95	0.84*	1.33*	6.15*
NM08231	0.55	1.03*	1.20*	1.08*	0.92*	1.36*	6.15*
NM07235	0.49	1.09*	1.17*	0.99*	0.85*	1.35*	5.91*
NM07227	0.72*	0.99*	1.01*	0.89	0.89*	1.36*	5.84*
Wilson	0.51	0.99*	1.05*	0.95	0.87*	1.30*	5.70
PGI 908-S	0.48	1.06*	1.16*	0.84	0.81*	1.32*	5.66
56S82	0.54	0.92*	0.95*	0.89	0.88*	1.30*	5.51
NM08281	0.61	1.04*	1.02*	0.87	0.68*	1.22*	5.43
59N59	0.46	0.96*	1.02*	0.88	0.78*	1.34*	5.41
CW058071	0.43	0.96*	1.12*	0.81	0.79*	1.27*	5.39
NM08196	0.48	0.91*	0.96*	0.91	0.82*	1.29*	5.37
Dona Ana	0.49	0.91*	1.01*	0.92	0.75*	1.25*	5.34
NM07237	0.32	0.72*	0.80*	0.74	0.74*	1.11*	4.42
Mean	0.55	1.01	1.07	0.93	0.83	1.31	5.69
5% LSD	0.21	NS	NS	0.21	NS	NS	1.03
CV%	27.18	19.34	17.75	16.16	15.05	9.00	12.62

Table 3. Dry matter yields (tons/acre) of alfalfa varieties sown October 11, 2010, at NMSU's Leyendecker Plant Science Research Center at Las Cruces and flood-irrigated every 28 days†.

†Data were analyzed using analysis of covariance where alternating plots of 58N57 were used as the covariate.

[‡]The October 2011 yield increase resulted from more available water due to the study being inadvertently irrigated.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD.

	2009	2010			2011 H	larvests			2011	3-yr
Variety Name	Total	Total	5-May	3-Jun	1-Jul	27-Jul	24-Aug	4-Oct	Total	Average
59N59	7.80**	8.03**	1.78*	1.54*	1.50*	1.27*	1.14*	1.19**	8.41*	8.11**
HybriForce-800	7.70*	7.21	1.95**	1.71**	1.67**	1.28*	1.14*	1.12*	8.91**	7.92*
Wilson	7.26*	7.50*	1.73*	1.55*	1.59*	1.28*	1.17**	1.11*	8.40*	7.70*
NM Common	7.08	7.55*	1.78*	1.59*	1.39	1.25*	1.09*	1.09	8.25*	7.61*
HybriForce-700	7.32*	7.33	1.48	1.37*	1.62*	1.21*	1.06*	1.05	7.81	7.46*
African Common	7.32*	6.93	1.52	1.33	1.52*	1.21*	1.17*	1.07	7.80	7.44*
HybriForce-2600	7.05	7.10	1.71*	1.57*	1.36	1.22*	0.89	0.97	7.74	7.27
WL 530HQ	7.21	6.89	1.68*	1.41*	1.24	1.29*	0.86	0.95	7.48	7.18
Dona Ana	6.74	6.80	1.77*	1.58*	1.35	1.27*	1.09*	1.05	8.02*	7.18
Magna 901	6.83	6.60	1.62*	1.44*	1.31	1.28*	1.07*	1.04	7.83	7.10
56S82	6.60	6.81	1.76*	1.52*	1.44*	1.27*	0.85	1.03	7.90	7.08
MagnaGraze	6.50	6.66	1.81*	1.63*	1.26	1.23*	0.91	0.98	7.85	7.06
AmeriStand 407TQ	6.72	6.91	1.56	1.37*	1.23	1.26*	0.98	0.93	7.31	6.97
ms.Sunstra.808	6.70	6.44	1.83*	1.53*	1.40	1.21*	0.92	0.92	7.79	6.95
Dura 843	6.42	6.79	1.76*	1.55*	1.28	1.25*	0.78	0.93	7.52	6.91
PGI 459	6.56	6.42	1.63*	1.43*	1.43*	1.28*	0.96	0.95	7.72	6.88
6552	6.54	6.30	1.62*	1.35*	1.49*	1.27*	0.88	0.97	7.57	6.84
WL 535HQ	6.59	6.84	1.28	1.11	1.31	1.31**	1.04	1.00	7.05	6.84
WL 440HQ	6.56	6.73	1.45	1.29	1.22	1.28*	0.98	0.99	7.17	6.83
Malone	6.89	6.67	1.12	0.90	1.28	1.26*	0.98	0.98	6.54	6.78
FSG 639ST	6.54	6.23	1.71*	1.55*	1.25	1.20*	0.89	0.96	7.42	6.64
WL 711	6.46	6.59	1.20	1.05	1.25	1.28*	0.89	0.95	6.56	6.55
FSG 528SF	6.24	6.35	1.28	1.08	1.26	1.27*	0.88	0.92	6.75	6.44
WL 319HQ	6.00	5.92	1.59*	1.40	1.20	1.26*	0.92	0.90	7.33	6.40
Mean	6.82	6.82	1.61	1.41	1.37	1.26	0.98	1.00	7.63	7.09
5% LSD	0.58	0.62	0.39	0.37	0.25	NS	0.12	0.10	1.01	0.69
CV%	7.43	7.90	20.88	22.79	16.14	5.30	11.10	8.73	11.56	14.87

Table 4. Dry matter yields (tons/acre) of sprinkler-irrigated alfalfa varieties sown September 18, 2008, at NMSU's Agricultural Science Center at Artesia†.

†Data were analyzed using analysis of covariance where alternating plots of WL 535HQ were used as the covariate.

2009 Harvest dates: 26-May, 25-Jun, 28-Jul, 25-Aug, and 24-Sep.

2010 Harvest dates: 6-May, 7-Jun, 14-Jul, 16-Aug, 16-Sep, and 7-Oct.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD.

	2008	2009	2010		201	1 Harves	sts		2011	4-yr
Variety Name	Total	Total	Total	25-May	29-Jun	3-Aug	22-Sep	2-Nov	Total	Average
PGI 424	8.43**	6.63**	8.05**	2.10	1.74*	1.71*	1.25*	0.78*	7.57*	7.67**
Tango	8.31*	6.36*	7.86*	2.29*	1.66*	1.82*	1.40*	0.79*	7.96*	7.62*
Cimarron VL600	8.18*	6.60*	7.68*	2.43**	1.69*	1.67*	1.41*	0.61	7.81*	7.57*
Archer III	7.61	6.51*	7.88*	2.28*	1.67*	1.77*	1.51**	0.71*	7.94*	7.49*
GT 13R	7.71*	6.28*	7.73*	2.35*	1.74*	1.90*	1.35*	0.85*	8.18**	7.47*
African Common	7.43	6.40*	7.56*	2.13	1.78**	1.94*	1.28*	0.87**	8.01*	7.35*
Dona Ana	7.68	6.36*	7.51*	2.12	1.76*	1.78*	1.25*	0.79*	7.69*	7.31*
AmeriStand 407TQ	7.01	6.47*	7.83*	2.22*	1.70*	1.70*	1.40*	0.78*	7.80*	7.28*
Wilson	7.31	6.21*	7.76*	2.33*	1.75*	1.44*	1.39*	0.87**	7.76*	7.26*
AmeriLeaf 721	8.34*	5.91*	7.63*	2.14	1.56	1.51*	1.29*	0.64	7.14	7.25*
NM Common	7.14	6.23*	7.31*	2.33*	1.65*	1.96**	1.38*	0.82*	8.14*	7.20*
WL 442	7.73	6.30*	7.38*	2.08	1.47	1.56*	1.24*	0.75*	7.10	7.13*
Rancher Special	8.15*	6.09*	7.08*	1.95	1.56	1.62*	1.26*	0.66	7.05	7.09*
SS120	7.60	6.04*	7.05*	2.14	1.64*	1.71*	1.28*	0.71*	7.48*	7.04*
SW6403	7.41	5.91*	7.11*	2.07	1.56	1.73*	1.15*	0.70*	7.21	6.91
WL 343HQ	7.15	5.78*	7.05*	1.79	1.47	1.53*	1.21*	0.57	6.57	6.64
Mean	7.70	6.25	7.53	2.17	1.65	1.71	1.32	0.74	7.59	7.27
5% LSD	0.74	NS	NS	0.27	0.20	NS	NS	0.19	0.72	0.67
CV%	6.72	11.00	8.37	8.64	8.72	13.05	11.09	17.60	6.62	13.22

Table 5. Dry matter yields (tons/acre) of alfalfa varieties sown September 19, 2007, at NMSU's Agricultural Science Center at Los Lunas and flood-irrigated twice per cutting[†].

†Data were detrended using nearest neighbor analysis, and analyzed using analysis of variance.

2008 Harvest dates: 2-Jun, 10-Jul, 15-Aug, and 1-Oct.

2009 Harvest dates: 1-Jun, 7-Jul, 21-Aug, and 6-Oct.

2010 Harvest dates: 19-May, 30-Jun, 3-Aug, 8-Sep, and 28-Oct.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD.

J·	2010		2011	Harves	ts		2011	2-yr
Variety Name	Total	25-May	29-Jun	3-Aug	22-Sep	2-Nov	Total	Average
Artesian Sunrise	6.78*	2.35**	1.94**	1.55*	1.32*	1.11*	8.26**	7.52**
Dona Ana	6.99**	2.15*	1.78*	1.71*	1.41*	1.02*	8.05*	7.52**
WL 440HQ	6.81*	2.20*	1.70*	1.84**	1.31*	0.95*	7.99*	7.40*
Wilson	6.76*	1.80	1.75*	1.75*	1.27*	1.12**	7.70*	7.23*
Dura 843	6.95*	2.07*	1.74*	1.58*	1.20	0.86	7.45	7.20*
Malone	6.63*	1.88	1.79*	1.65*	1.35*	1.07*	7.73*	7.18*
HybriForce-2400	6.66*	2.19*	1.76*	1.65*	1.29*	0.77	7.65*	7.16*
Mountaineer 2.0	6.70*	1.84	1.75*	1.78*	1.25	0.98*	7.59*	7.14*
NM Common	6.41*	2.15*	1.69*	1.51*	1.47**	1.07*	7.87*	7.14*
4S417	6.85*	2.07*	1.63*	1.59*	1.15	0.84	7.27	7.06*
Velvet	6.67*	1.91	1.77*	1.87*	1.20	0.68	7.42	7.04*
WL 363HQ	6.51*	1.80	1.81*	1.61*	1.43*	0.83	7.47	6.99*
Rugged	6.66*	2.04	1.69*	1.68*	1.23	0.56	7.18	6.92*
AmeriStand 201+Z	6.30*	2.24*	1.78*	1.55*	1.14	0.69	7.39	6.85*
Maxi Graze	6.37*	1.95	1.76*	1.69*	1.31*	0.52	7.24	6.80
6422Q	6.50*	1.84	1.65*	1.60*	1.23	0.79	7.10	6.80
African Common	6.06*	2.05	1.42*	1.84*	1.28*	0.92*	7.50	6.78
HybriForce-2420/wet	6.43*	2.02	1.61*	1.41*	1.17	0.74	6.94	6.68
LegenDairy 5.0	6.36*	1.67	1.70*	1.57*	1.13	0.55	6.62	6.49
63Q105	5.81*	1.62	1.53*	1.53*	1.09	0.53	6.29	6.05
Mean	6.56	1.99	1.71	1.65	1.26	0.83	7.44	7.00
5% LSD	NS	0.30	NS	NS	0.22	0.23	0.76	0.70
CV%	8.43	10.52	11.89	12.13	12.14	19.65	7.22	10.05

Table 6. Dry matter yields (tons/acre) of alfalfa varieties sown September 30, 2009, at NMSU's Agricultural Science Center at Los Lunas and flood-irrigated twice per cutting[†].

†Data were detrended using nearest neighbor analysis, and analyzed using analysis of variance. 2010 Harvest dates: 19-May, 30-Jun, 3-Aug, 8-Sep, and 29-Oct.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD. NS means that there were no significant differences between the varieties within that column at the 5% level.

	2008	2009	2010	0	2011 H	larvests		2011	4-yr
Variety Name	Total	Total	Total	8-Jun	14-Jul	17-Aug	13-0ct	Total	Average
Mountaineer 2.0	8.18*	10.32*	11.36*	2.48*	3.04*	2.23*	1.94*	9.69*	9.89**
AmeriStand 444NT	8.24*	10.05*	11.48**	2.43*	2.84*	2.24*	1.96*	9.47*	9.81*
Masterpiece	8.26**	10.38*	11.01*	2.39*	2.77*	2.30*	1.86*	9.32*	9.74*
PGI 459	7.61*	9.51	10.38	2.51*	3.18**	2.51**	1.93*	10.12**	9.40*
54V09	7.82*	10.13*	10.45*	2.58*	2.77*	2.07*	1.74*	9.15*	9.39*
CW500	7.51*	9.97*	10.36	2.68*	2.64*	2.38*	1.79*	9.49*	9.33*
FSG 528SF	7.22*	10.39**	10.42*	2.06*	2.64*	2.30*	1.86*	8.87*	9.22*
Medalist	7.01*	9.13	10.13	3.02**	2.82*	2.38*	1.85*	10.07*	9.08*
AmeriStand 407TQ	7.72*	9.00	10.35	2.56*	2.79*	2.29*	1.52*	9.16*	9.06*
Integra 8400	7.41*	9.41	10.09	2.33*	2.63*	2.24*	2.01**	9.20*	9.03*
Archer II	6.97*	9.54	10.04	2.67*	2.90*	2.33*	1.59*	9.48*	9.00
Grandstand	7.09*	9.21	9.99	2.79*	2.60*	2.25*	1.96*	9.59*	8.97
Legend	6.48*	9.40	10.91*	2.25*	2.80*	2.19*	1.76*	8.99*	8.94
Wilson	6.97*	8.93	10.53*	2.57*	2.58*	2.29*	1.82*	9.26*	8.92
Archer III	7.33*	9.27	10.24	2.21*	2.62*	2.13*	1.71*	8.66*	8.88
A 5225	7.09*	9.49	10.10	2.42*	2.46*	2.24*	1.56*	8.68*	8.84
NM0306	7.52*	9.71	10.30	1.96*	2.25*	1.97*	1.61*	7.78*	8.83
NuMex Bill Melton	6.88*	9.11	9.38	2.72*	2.67*	2.34*	2.01**	9.73*	8.77
African Common	7.28*	9.41	9.18	2.30*	2.56*	2.36*	1.93*	9.16*	8.76
Dona Ana	7.19*	9.26	10.12	2.22*	2.36*	1.96*	1.52*	8.06*	8.65
Ranger	7.19*	9.11	9.78	2.46*	2.57*	1.90*	1.52*	8.43*	8.63
WL 343HQ	6.92*	8.46	9.68	2.45*	2.86*	2.15*	1.66*	9.12*	8.54
NM0313	6.99*	8.77	8.90	2.29*	2.67*	2.18*	1.99*	9.13*	8.45
NM Common	6.52*	8.21	9.24	2.00*	2.02*	2.01*	1.72*	7.75*	7.93
Mean	7.31	9.42	10.18	2.43	2.67	2.22	1.78	9.10	9.00
5% LSD	NS	0.78	1.08	NS	NS	NS	NS	NS	0.89
CV%	12.61	5.90	7.53	16.40	14.13	12.41	15.20	11.00	14.17

Table 7. Dry matter yields (tons/acre) of alfalfa varieties sown September 20, 2007, at NMSU's Agricultural Science Center at Farmington and sprinkler-irrigated three times per week[†].

†Data were detrended using nearest neighbor analysis, and analyzed using analysis of variance.

2008 Harvest dates: 12-Jun, 16-Jul, 21-Aug, and 3-Oct.

2009 Harvest dates: 4-Jun, 15-Jul, 20-Aug, and 9-Oct.

2010 Harvest dates: 3-Jun, 13-Jul, 18-Aug, and 13-Oct.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD.

	2010	Y	'ield (dry	tons/acr	e)	2011	2-yr
Variety Name	Total	7-Jun	13-Jul	18-Aug	11-0ct	Total	Average
Lahontan	9.76**	3.33**	2.81**	2.42**	1.87	10.42**	10.09‡
Mountaineer 2.0	9.35*	2.88*	2.50*	2.35*	2.03*	9.75*	9.55**
4S417	9.19*	3.00*	2.29	2.32*	1.89*	9.50	9.35*
SW435	8.99	3.05*	2.50*	2.26*	1.84	9.65*	9.32*
Dona Ana	9.15*	2.85	2.68*	2.19*	1.75	9.45	9.30*
LegenDairy 5.0	9.22*	3.16*	2.68*	1.92	1.54	9.30	9.26*
HybriForce-2400	9.40*	3.06*	2.34	2.04	1.57	9.02	9.21*
WL 440HQ	9.09	2.69	2.49	2.19*	1.79	9.16	9.12*
AmeriStand 201+Z	8.59	3.00*	2.38	2.28*	1.80	9.45	9.02
African Common	9.16*	2.59	2.52*	2.16	1.59	8.85	9.00
Dura 843	9.29*	2.49	2.26	2.15	1.78	8.67	8.98
NM Common	8.90	2.59	2.53*	2.14	1.75	9.01	8.96
HybriForce-2420/wet	8.69	3.00*	2.41	2.17*	1.65	9.23	8.96
WL 363HQ	9.14*	2.67	2.49*	1.94	1.54	8.64	8.89
SW6330	8.90	2.29	2.14	2.26*	2.11**	8.79	8.85
63Q105	8.51	2.85	2.60*	2.00	1.69	9.15	8.83
Rugged	8.62	2.85	2.36	2.08	1.63	8.92	8.77
Artesian Sunrise	9.03	2.16	2.03	2.29*	1.94*	8.42	8.72
Malone	8.60	2.43	2.55*	2.06	1.80	8.83	8.72
Velvet	8.62	2.84	2.27	2.18*	1.48	8.76	8.69
Ranger	8.52	2.88	2.21	2.03	1.65	8.76	8.64
Maxi Graze	8.25	3.02	2.38	2.05	1.57	9.02	8.63
Wilson	8.74	2.46	2.27	2.02	1.62	8.36	8.55
6422Q	8.37	2.99	2.51*	1.66	1.44	8.61	8.49
Mean	8.92	2.80	2.42	2.13	1.72	9.07	8.99
5% LSD	0.63	0.46	0.39	0.26	0.23	0.90	0.49
CV%	4.99	11.69	11.31	8.61	9.30	7.02	5.42

Table 8. Dry matter yields (tons/acre) of alfalfa varieties sown August 26, 2009, at NMSU's Agricultural Science Center at Farmington†.

†Data were detrended using nearest neighbor analysis, and analyzed using analysis of variance.

2010 Harvest dates: 4-Jun, 14-Jul, 24-Aug, and 14-Oct.

‡Lahontan had significantly higher yields than all others in this column. Consequently, yields not different from the second highest yielding variety are also shown using asterisks.

**Highest numerical value in the column.

*Not significantly different from the highest numerical value in the column based on the 5% LSD.

		Γ												Las C	cruces								Τ				
Table 9. Characteristics	and performance of alfalfa					Varie	etal C	harac	cterist	ics ¹				20	10 ²	Art	iesi	a	<u> L</u>	os L	una	3S		Far	min	ngto	JN
varieties across years ar	nd tests in New Mexico.	ΓΙ		_		_	_	Pes	t resis	tance	е			F ³	L	20	008		20)07		200	9	20	07		2009
Variety	Proprietor	RR	FD	WS	BW	FW	AN	PRR	SAA	PA	BAA	SN	RKN	11 ⁴	11	09	10 1	110	8 09	10	11	10 1	1 08	3 09	10	11	10 11
AmeriStand 201+Z	America's Alfalfa	\square	2	2	HR	HR	R	HR	HR	n/r	R	n/r	n/r									*	T				1
Maxi Graze	Croplan Genetics		2	2	HR	HR	R	HR	n/r	n/r	n/r	n/r	n/r						T			*					
Velvet	Producer's Chioce Seed		2	1	HR	HR	HR	HR	n/r	HR	S	n/r	n/r						T			*					T
63Q105	Syngenta Seeds	\square	3	1	HR	HR	HR	HR	HR	n/r	n/r	R	MR									*					T
LegenDairy 5.0	Croplan Genetics		3	2	HR	HR	HR	HR	R	R	n/r	MR	R									*					*
MagnaGraze	Dairyland Seed Co.		3	2	HR	HR	R	HR	R	n/r	MR	MR	LR														
Ranger	USDA, Univ. of Nebraska		3	n/r	R	n/r	n/r	n/r	R	n/r	n/r	R	n/r										*	Π		*	
Rugged	Producer's Chioce Seed		3	1	R	MR	R	MR	n/r	HR	n/r	MR	n/r									*					
SS120	Arkansas Valley Seed Solutions	\square	3	3	HR	R	R	R	R	R	R	n/r	n/r						*	*	*						
WL319HQ	W-L Research	\mathbf{T}	3	1	HR	HR	HR	HR	R	HR	n/r	MR	n/r					Т									
4S417	Mycogen Seed		4	2	HR	HR	HR	HR	n/r	n/r	n/r	HR	R									*					*
54V09	Pioneer HiBred Int'l	\square	4	n/r	HR	HR	HR	R	R	HR	n/r	HR	HR							Π			*	*	*	*	
6422Q	Syngenta Seeds	\mathbf{T}	4	1	HR	HR	HR	HR	n/r	R	n/r	R	n/r									*					
AmeriStand 407TQ	America's Alfalfa		4	2	HR	HR	HR	HR	n/r	n/r	n/r	n/r	n/r						*	*	*		*	Π		*	
AmeriStand 444NT	America's Alfalfa	\square	4	n/r	HR	HR	HR	HR	R	HR	MR	HR	HR										*	*	**	*	
GrandStand	Western Farm Service	\mathbf{T}	4	n/r	HR	HR	HR	HR	R	HR	n/r	MR	n/r										*	\square		*	
HybriForce-2400	Dairyland Seed Co.	\mathbf{T}	4	2	HR	HR	HR	HR	n/r	n/r	n/r	HR	R									*	*				*
HybriForce-2420/Wet	Dairyland Seed Co.	\mathbf{T}	4	2	HR	HR	HR	HR	n/r	n/r	n/r	R	R									*					
Integra 8400	Wilbur-Ellis	\mathbf{T}	4	2	HR	HR	HR	HR	n/r	HR	n/r	R	R										*	Π		*	
Legend	Arkansas Valley Seed Solutions	\mathbf{T}	4	3	HR	HR	HR	HR	LR	R	n/r	MR	n/r										*	\square	*	*	
Masterpiece	J.R. Simplot Co	\mathbf{T}	4	3	HR	HR	HR	HR	R	n/r	R	HR	R										**	*	*	*	
Medalist	IFA/Curtis and Curtis		4	3	HR	HR	HR	HR	HR	R	n/r	HR	HR										*	\square		*	
PGI 424	Producer's Choice Seed		4	n/r	HR	HR	HR	HR	n/r	R	n/r	HR	R					*	* **	**	*						
PGI 459	Producer's Choice Seed	\mathbf{T}	4	n/r	HR	HR	HR	HR	R	R	n/r	n/r	n/r										*	Π		**	
Rancher Special, blend	1st Select Seed, Inc.	\mathbf{T}	4	n/r	R	R	R	R	n/r	n/r	n/r	n/r	n/r					*	* *	*							
SW435	S & W Seeds	\mathbf{T}	4	2	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r														*
WL343HQ	W-L Research	+	4	1	HR	HR	HR	HR	R	R	MR	R	n/r						*	*			*	Π		*	
¹ RR=Roundup Ready if "\ 10=UC1887), BW=Bacteria RKN=Rootknot nematode n/r indicates either that the	("; WS=Winter Survival (1=No injury al wilt, PRR=Phytophthora root rot, F (southern); (S=Susceptible, LR=Low e variety was not rated for that chara	, 6=De W=Fu v resis cterist	ead Jsar tanc ic or	plan ium :e, N ⁻ no	ts), F wilt, <i>F</i> 1R=M rating	D=Fa AN=A lodera J was	II Dor nthra ate re avail:	mancy cnose sistan able.	y (2=V , SAA: ce, R=	/ernal =Spot =Resis	l, 3=5: tted a stant,	246, 4 falfa ; HR=H	l=Lege aphid, ∣ ⊣igh re	nd, 5=A PA=Pea sistance	archer, 6 a aphid, e).	b=AB BAA	il 7(.=Bl)0, 7 ue a	=Do Ifalfa	na A a ap	Ana, hid,	8=F SN:	Pierc⊧ ⊧Ste⊧	e, 9- m ne	CUF mat	₹10 tode	1, ?,

²Establishment year.

³F=Full flood irrigation approximately every 14 days, L=Limited flood irrigation approximately every 28 days.

⁴Harvest year.

Shaded boxes indicate that the variety was not in the test.

**Highest yielding variety in the test for that year.

*Not significantly different from the highest yielding variety in the test for that year.

L.M. Lauriault, I.M. Ray, C.A. Pierce, R.P. Flynn, M.K. O'Neill, and T. Place

New Mexico St. Univ. College of Agricultural, Consumer and Environmental Sciences. Agric. Exp. Stn and Coop. Ext. Ser.

Table 9 continued on next page

istics and performance of alfalfa													Lasu	luces											
stics and performance of analia					Varie	etal C	harac	cterist	ics ¹				20	10 ²	Ar	tesia	1	Lo	os Lu	nas		Fa	rmir	ngtc	on
d tests in New Mexico.							Pest	t resis	tance	Э			F ³	L	20	800		20	07	20	09	20	07	,	2009
Proprietor	RR F	D	NS	BW	FW	AN	PRR	SAA	PA	BAA	SN	RKN	11 ⁴	11	09 [·]	10 1	1 08	09	10 1	1 10	11 (08 09	10	11 ¹	10 11
Garst Seed Co.		5	2	HR	HR	HR	HR	n/r	R	n/r	R	n/r													
Pioneer HiBred Int'l		5 I	n/r	HR	HR	HR	HR	R	HR	n/r	R	n/r													
Producer's Choice Seed		5 I	n/r	HR	HR	HR	HR	n/r	n/r	n/r	n/r	n/r										*		*	
America's Alfalfa		5	4	R	HR	HR	R	HR	MR	HR	HR	R										*		*	
America's Alfalfa		5	2	HR	HR	HR	HR	n/r	HR	n/r	HR	HR						*	* *			*		*	
Producer's Choice		5 I	n/r	HR	HR	HR	HR	R	R	n/r	HR	n/r										* *		*	
Allied Seed		5 I	n/r	HR	HR	HR	R	n/r	R	n/r	n/r	n/r										* **	*	*	
Croplan Genetics		5	2	HR	HR	HR	HR	R	HR	n/r	HR	R								*	*	* *	*	*	* *
W-L Research		5	2	Н	Н	Η	Н	R	R	MR	MR	MR								*					*
BrettYoung		6	2	HR	HR	HR	HR	n/r	n/r	n/r	R	R													
Pioneer HiBred Int'l		6	5	HR	HR	HR	HR	HR	HR	HR	HR	HR													
Great Plains Research		6 1	n/r	R	HR	HR	HR	R	HR	HR	R	MR					*	*	* *						
Allied Seed		6	3	HR	HR	R	HR	n/r	R	n/r	n/r	n/r													
Dairyland Seed Co.		6 1	n/r	HR	HR	HR	HR	n/r	n/r	n/r	n/r	n/r													
USDA, Univ. of Nevada		6 1	n/r	R	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r												1	** **
Dairyland Seed Co.		6 1	n/r	HR	HR	HR	HR	n/r	n/r	n/r	n/r	n/r													
S & W Seeds		6 1	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r													
Eureka Seeds		6	4	HR	HR	HR	HR	HR	HR	R	R	R					*	*	* *						
New Mexico State University		6 1	n/r	R	R	n/r	n/r	MR	R	n/r	MR	n/r			*	* 3	*	*	* *	*	*	*	*	*	
W-L Research		6 1	n/r	HR	HR	R	HR	HR	HR	HR	HR	HR								*	*				
America's Alfalfa		7	n/r	R	HR	HR	HR	HR	R	MR	MR	R					*	*	*						
Croplan Genetics		7 I	n/r	MR	HR	R	HR	HR	HR	R	R	n/r								*	**				
New Mexico State University		7	n/r	MR	MR	LR	R	MR	R	n/r	n/r	n/r				3	*	*	* *	**	*	*		*	* *
Dairyland Seed Co.		7 I	n/r	MR	HR	n/r	HR	HR	R	n/r	HR	R			*										
New Mexico State University		7	n/r	R	HR	R	R	R	HR	S	MR	n/r								*	*				
New Mexico State University		7 I	n/r	MR	R	R	R	R	MR	MR	n/r	n/r	*	**								*		*	
alone New Mexico State University 7 n/r R																									
	Proprietor Garst Seed Co. Pioneer HiBred Int'l Producer's Choice Seed America's Alfalfa Producer's Choice Allied Seed Croplan Genetics W-L Research BrettYoung Pioneer HiBred Int'l Great Plains Research Allied Seed Dairyland Seed Co. USDA, Univ. of Nevada Dairyland Seed Co. S & W Seeds Eureka Seeds New Mexico State University W-L Research America's Alfalfa Croplan Genetics New Mexico State University W-L Research America's Alfalfa Croplan Genetics New Mexico State University Dairyland Seed Co. New Mexico State University W-L Research America's Alfalfa Croplan Genetics New Mexico State University Dairyland Seed Co. New Mexico State University New Mexico State University	ProprietorRRFGarst Seed Co.Image: Pioneer HiBred Int'lImage: Pioneer HiBred Int'lProducer's Choice SeedImage: Pioneer AlfafaImage: Pioneer AlfafaAmerica's AlfafaImage: Pioneer ChoiceImage: Pioneer AlfafaAllied SeedImage: Pioneer HiBred Int'lImage: Pioneer HiBred Int'lGreat Plains ResearchImage: Pioneer AlfafaImage: Pioneer AlfafaAllied SeedImage: Pioneer AlfafaImage: Pioneer AlfafaDairyland Seed Co.Image: Pioneer AlfafaImage: Pioneer AlfafaDairyland Seed Co.Image: Pioneer AlfafaImage: Pioneer AlfafaCroplan GeneticsImage: Pioneer AlfafaImage: Pioneer AlfafaCropl	ProprietorRRFDNGarst Seed Co.5Pioneer HiBred Int'l5Producer's Choice Seed5America's Alfalfa5America's Alfalfa5Producer's Choice5Allied Seed5Croplan Genetics5W-L Research5BrettYoung6Pioneer HiBred Int'l6Great Plains Research6Allied Seed6Dairyland Seed Co.6USDA, Univ. of Nevada6Dairyland Seed Co.6S & W Seeds6Eureka Seeds6New Mexico State University6W-L Research6America's Alfalfa7Toplan Genetics7New Mexico State University7V-L Research6New Mexico State University7Varpland Seed Co.7New Mexico State University7V-L Research6America's Alfalfa777New Mexico State University777New Mexico State University777107117<	ProprietorRRFDWSGarst Seed Co.52Pioneer HiBred Int'I5n/rAmerica's Alfalfa54America's Alfalfa52Producer's Choice5n/rAllied Seed5n/rAllied Seed52W-L Research52BrettYoung62Pioneer HiBred Int'I65Great Plains Research6n/rAllied Seed63Dairyland Seed Co.6n/rUSDA, Univ. of Nevada6n/rDairyland Seed Co.6n/rS & W Seeds6n/rEureka Seeds6n/rMexico State University6n/rMexico State University7n/rNew Mexico State University7n	ProprietorRRFDWSBWGarst Seed Co.52HRPioneer HiBred Int'I5n/rHRProducer's Choice Seed5n/rHRAmerica's Alfalfa52HRAmerica's Alfalfa52HRProducer's Choice5n/rHRAllied Seed5n/rHRAllied Seed52HRCroplan Genetics52HRW-L Research52HRPioneer HiBred Int'I65HRGreat Plains Research61n/rAllied Seed63HRDairyland Seed Co.6n/rHRUSDA, Univ. of Nevada6n/rRDairyland Seed Co.6n/rHRS & W Seeds6n/rRW-L Research61n/rNew Mexico State University6n/rRNew Mexico State University7n/rRNew Mexico State University7n/rRN	ProprietorRRFDWSBWFWGarst Seed Co.52HRHRPioneer HiBred Int'I5n/rHRHRProducer's Choice Seed5n/rHRHRAmerica's Alfalfa52HRHRAmerica's Alfalfa52HRHRAmerica's Alfalfa52HRHRAmerica's Alfalfa52HRHRAmerica's Alfalfa52HRHRProducer's Choice5n/rHRHRAllied Seed52HHCroplan Genetics52HHRW-L Research52HHRPioneer HiBred Int'I65HRHRGreat Plains Research6n/rRHRAllied Seed63HRHRDairyland Seed Co.6n/rRHRUSDA, Univ. of Nevada6n/rRRW-L Research66n/rRRNew Mexico State University6n/rRRNew Mexico State University7n/rMRRNew Mexico State University7n/rMRRNew Mexico State University7n/rRHRNew Mexico State University7n/rRHRNew Mexico State University7n/rRHRNew Mexico State Universit	ProprietorRRFDWSBWFWANGarst Seed Co.52HRHRHRHRPioneer HiBred Int'I5n/rHRHRHRProducer's Choice Seed5n/rHRHRHRAmerica's Alfalfa54RHRHRAmerica's Alfalfa52HRHRHRProducer's Choice5n/rHRHRHRAllied Seed5n/rHRHRHRCroplan Genetics52HHHRPioneer HiBred Int'I65HRHRHRGreat Plains Research6n/rRHRHRAllied Seed6n/rRHRHRUSDA, Univ. of Nevada6n/rRn/rn/rDairyland Seed Co.6n/rRn/rn/rS & W Seeds6n/rRHRHRNew Mexico State University6n/rRRNew Mexico State University7n/rRRNew Mexico State University7n/rRR <td>ProprietorRRFDWSBWFWANPRRGarst Seed Co.52HRHRHRHRHRPioneer HiBred Int'I5n/rHRHRHRHRProducer's Choice Seed5n/rHRHRHRHRAmerica's Alfalfa54RHRHRHRAmerica's Alfalfa52HRHRHRHRProducer's Choice5n/rHRHRHRHRAmerica's Alfalfa52HRHRHRHRProducer's Choice5n/rHRHRHRHRAllied Seed52HRHRHRHRW-L Research52HHHHRBrettYoung62HRHRHRHRPioneer HiBred Int'I65HRHRHRHRGarat Plains Research6n/rRHRHRHRAllied Seed6n/rRHRHRHRDairyland Seed Co.6n/rHRHRHRHRS & W Seeds6n/rn/rN/rn/rn/rS & W Seeds6n/rN/RRHRHRNew Mexico State University7n/rRHRHRNew Mexico State University7n/rRHRHRNew Mexico State University7<!--</td--><td>ProprietorRRFDWSBWFWANPRRSAAGarst Seed Co.52HRHRHRHRHRHRRPioneer HiBred Int'I5n/rHRHRHRHRRRProducer's Choice Seed5n/rHRHRHRHRRRAmerica's Alfalfa52HRHRHRHRRRAmerica's Alfalfa52HRHRHRRRProducer's Choice5n/rHRHRHRRRAllied Seed5n/rHRHRHRRRAllied Seed52HHHHRRW-L Research52HHRHRHRRBrettYoung62HRHRHRHRRGreat Plains Research6n/rRN/rN/rN/rAllied Seed6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rS & W Seeds6n/rRn/rn/rn/rMew Mexico State University6n/rRRRRNew Mexico State University7n/rRRRRNew Mexico State University7n/rR<</td><td>ProprietorRRFDWSBWFWANPRRSAAPAGarst Seed Co.52HRHRHRHRHRN/rRPioneer HiBred Int'I5n/rHRHRHRHRHRHRHRHRHRProducer's Choice Seed5n/rHRHRHRHRHRHRHRN/rRAmerica's Alfalfa52HRHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRPoiducer's Choice5n/rHRHRHRHRRRRPioducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice6n/rRHRHRHRRRRPietYoung62HRHRHRHRRRRRPie</td><td>ProprietorRRFDWSBWFWANPRRSAAPABAAGarst Seed Co.52HRHRHRHRHRN/rRN/rProducer's Choice Seed5n/rHRHRHRHRHRRRMRN/rAmerica's Alfalfa52HRHRHRHRHRN/rn/rn/rAmerica's Alfalfa52HRHRHRHRRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRn/rRn/rProducer's Choice5n/rHRHRHRHRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/rN/rN/rAllied Seed5n/rHRHRHRHRRN/rN/rn/rProper HiBred Int'I65HRHRHRHRHRHRHRHRHRBartyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rMew Mexico State University6n/rRR<!--</td--><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNGarst Seed Co.52HRHRHRHRHRN/rRn/rRPioneer HiBred Int15n/rHRHRHRHRHRN/rn/rn/rN/rProducer's Choice Seed5n/rHRHRHRHRN/rn/rn/rn/rn/rAmerica's Alfalfa52HRHRHRHRN/rHRHRN/rN/rN/rAmerica's Alfalfa52HRHRHRHRN/rN/rHRHRN/rN/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/r<td< td=""><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNRKNGarst Seed Co.52HRHRHRHRHRRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/r</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* Garst Seed Co. 5 2 HR HR HR HR R n/r N/r R n/r N/r R n/r n/r<</td><td>Proprietor RR FD WS BW/ FW AN PR SAA PA BAA SN RKN 11* 11 Garst Seed Co. 5 2 HR HR HR HR R N'r R n'r R n'r Pinoeer HiBred Int1 5 1 R HR HR HR R N'r N'r N'r N'r America's Alfalfa 5 2 HR HR HR HR N'r N'r</td></td<><td>Proprietor RR FD WS BW/ FW/ AN PR SAA PA BAA SN RKN 11* 11 09 Garst Seed Co. 5 2 HR HR HR HR R n'r N'r</td><td>Proprietor RR FD WS BW FW AN PR SAA PA BAA SN RKN 11* 11 09 10 Garst Seed Co. 5 2 HR HR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RN 11* 11 09 10 10 00 10 10 00 10 10 00 10 10 00 10<td>Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10<!--</td--><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td></td></td></td></td></td>	ProprietorRRFDWSBWFWANPRRGarst Seed Co.52HRHRHRHRHRPioneer HiBred Int'I5n/rHRHRHRHRProducer's Choice Seed5n/rHRHRHRHRAmerica's Alfalfa54RHRHRHRAmerica's Alfalfa52HRHRHRHRProducer's Choice5n/rHRHRHRHRAmerica's Alfalfa52HRHRHRHRProducer's Choice5n/rHRHRHRHRAllied Seed52HRHRHRHRW-L Research52HHHHRBrettYoung62HRHRHRHRPioneer HiBred Int'I65HRHRHRHRGarat Plains Research6n/rRHRHRHRAllied Seed6n/rRHRHRHRDairyland Seed Co.6n/rHRHRHRHRS & W Seeds6n/rn/rN/rn/rn/rS & W Seeds6n/rN/RRHRHRNew Mexico State University7n/rRHRHRNew Mexico State University7n/rRHRHRNew Mexico State University7 </td <td>ProprietorRRFDWSBWFWANPRRSAAGarst Seed Co.52HRHRHRHRHRHRRPioneer HiBred Int'I5n/rHRHRHRHRRRProducer's Choice Seed5n/rHRHRHRHRRRAmerica's Alfalfa52HRHRHRHRRRAmerica's Alfalfa52HRHRHRRRProducer's Choice5n/rHRHRHRRRAllied Seed5n/rHRHRHRRRAllied Seed52HHHHRRW-L Research52HHRHRHRRBrettYoung62HRHRHRHRRGreat Plains Research6n/rRN/rN/rN/rAllied Seed6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rS & W Seeds6n/rRn/rn/rn/rMew Mexico State University6n/rRRRRNew Mexico State University7n/rRRRRNew Mexico State University7n/rR<</td> <td>ProprietorRRFDWSBWFWANPRRSAAPAGarst Seed Co.52HRHRHRHRHRN/rRPioneer HiBred Int'I5n/rHRHRHRHRHRHRHRHRHRProducer's Choice Seed5n/rHRHRHRHRHRHRHRN/rRAmerica's Alfalfa52HRHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRPoiducer's Choice5n/rHRHRHRHRRRRPioducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice6n/rRHRHRHRRRRPietYoung62HRHRHRHRRRRRPie</td> <td>ProprietorRRFDWSBWFWANPRRSAAPABAAGarst Seed Co.52HRHRHRHRHRN/rRN/rProducer's Choice Seed5n/rHRHRHRHRHRRRMRN/rAmerica's Alfalfa52HRHRHRHRHRN/rn/rn/rAmerica's Alfalfa52HRHRHRHRRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRn/rRn/rProducer's Choice5n/rHRHRHRHRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/rN/rN/rAllied Seed5n/rHRHRHRHRRN/rN/rn/rProper HiBred Int'I65HRHRHRHRHRHRHRHRHRBartyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rMew Mexico State University6n/rRR<!--</td--><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNGarst Seed Co.52HRHRHRHRHRN/rRn/rRPioneer HiBred Int15n/rHRHRHRHRHRN/rn/rn/rN/rProducer's Choice Seed5n/rHRHRHRHRN/rn/rn/rn/rn/rAmerica's Alfalfa52HRHRHRHRN/rHRHRN/rN/rN/rAmerica's Alfalfa52HRHRHRHRN/rN/rHRHRN/rN/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/r<td< td=""><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNRKNGarst Seed Co.52HRHRHRHRHRRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/r</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* Garst Seed Co. 5 2 HR HR HR HR R n/r N/r R n/r N/r R n/r n/r<</td><td>Proprietor RR FD WS BW/ FW AN PR SAA PA BAA SN RKN 11* 11 Garst Seed Co. 5 2 HR HR HR HR R N'r R n'r R n'r Pinoeer HiBred Int1 5 1 R HR HR HR R N'r N'r N'r N'r America's Alfalfa 5 2 HR HR HR HR N'r N'r</td></td<><td>Proprietor RR FD WS BW/ FW/ AN PR SAA PA BAA SN RKN 11* 11 09 Garst Seed Co. 5 2 HR HR HR HR R n'r N'r</td><td>Proprietor RR FD WS BW FW AN PR SAA PA BAA SN RKN 11* 11 09 10 Garst Seed Co. 5 2 HR HR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RN 11* 11 09 10 10 00 10 10 00 10 10 00 10 10 00 10<td>Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10<!--</td--><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td></td></td></td></td>	ProprietorRRFDWSBWFWANPRRSAAGarst Seed Co.52HRHRHRHRHRHRRPioneer HiBred Int'I5n/rHRHRHRHRRRProducer's Choice Seed5n/rHRHRHRHRRRAmerica's Alfalfa52HRHRHRHRRRAmerica's Alfalfa52HRHRHRRRProducer's Choice5n/rHRHRHRRRAllied Seed5n/rHRHRHRRRAllied Seed52HHHHRRW-L Research52HHRHRHRRBrettYoung62HRHRHRHRRGreat Plains Research6n/rRN/rN/rN/rAllied Seed6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rDairyland Seed Co.6n/rRn/rn/rn/rS & W Seeds6n/rRn/rn/rn/rMew Mexico State University6n/rRRRRNew Mexico State University7n/rRRRRNew Mexico State University7n/rR<	ProprietorRRFDWSBWFWANPRRSAAPAGarst Seed Co.52HRHRHRHRHRN/rRPioneer HiBred Int'I5n/rHRHRHRHRHRHRHRHRHRProducer's Choice Seed5n/rHRHRHRHRHRHRHRN/rRAmerica's Alfalfa52HRHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRPoiducer's Choice5n/rHRHRHRHRRRRPioducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice5n/rHRHRHRHRRRRProducer's Choice6n/rRHRHRHRRRRPietYoung62HRHRHRHRRRRRPie	ProprietorRRFDWSBWFWANPRRSAAPABAAGarst Seed Co.52HRHRHRHRHRN/rRN/rProducer's Choice Seed5n/rHRHRHRHRHRRRMRN/rAmerica's Alfalfa52HRHRHRHRHRN/rn/rn/rAmerica's Alfalfa52HRHRHRHRRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRn/rRn/rProducer's Choice5n/rHRHRHRHRRn/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/rN/rN/rAllied Seed5n/rHRHRHRHRRN/rN/rn/rProper HiBred Int'I65HRHRHRHRHRHRHRHRHRBartyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rDairyland Seed Co.6n/rRN/rn/rn/rn/rn/rn/rn/rn/rMew Mexico State University6n/rRR </td <td>ProprietorRRFDWSBWFWANPRRSAAPABAASNGarst Seed Co.52HRHRHRHRHRN/rRn/rRPioneer HiBred Int15n/rHRHRHRHRHRN/rn/rn/rN/rProducer's Choice Seed5n/rHRHRHRHRN/rn/rn/rn/rn/rAmerica's Alfalfa52HRHRHRHRN/rHRHRN/rN/rN/rAmerica's Alfalfa52HRHRHRHRN/rN/rHRHRN/rN/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/r<td< td=""><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNRKNGarst Seed Co.52HRHRHRHRHRRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/r</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* Garst Seed Co. 5 2 HR HR HR HR R n/r N/r R n/r N/r R n/r n/r<</td><td>Proprietor RR FD WS BW/ FW AN PR SAA PA BAA SN RKN 11* 11 Garst Seed Co. 5 2 HR HR HR HR R N'r R n'r R n'r Pinoeer HiBred Int1 5 1 R HR HR HR R N'r N'r N'r N'r America's Alfalfa 5 2 HR HR HR HR N'r N'r</td></td<><td>Proprietor RR FD WS BW/ FW/ AN PR SAA PA BAA SN RKN 11* 11 09 Garst Seed Co. 5 2 HR HR HR HR R n'r N'r</td><td>Proprietor RR FD WS BW FW AN PR SAA PA BAA SN RKN 11* 11 09 10 Garst Seed Co. 5 2 HR HR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RN 11* 11 09 10 10 00 10 10 00 10 10 00 10 10 00 10<td>Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10<!--</td--><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td></td></td></td>	ProprietorRRFDWSBWFWANPRRSAAPABAASNGarst Seed Co.52HRHRHRHRHRN/rRn/rRPioneer HiBred Int15n/rHRHRHRHRHRN/rn/rn/rN/rProducer's Choice Seed5n/rHRHRHRHRN/rn/rn/rn/rn/rAmerica's Alfalfa52HRHRHRHRN/rHRHRN/rN/rN/rAmerica's Alfalfa52HRHRHRHRN/rN/rHRHRN/rN/rN/rN/rProducer's Choice5n/rHRHRHRHRRN/r <td< td=""><td>ProprietorRRFDWSBWFWANPRRSAAPABAASNRKNGarst Seed Co.52HRHRHRHRHRRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/r</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* Garst Seed Co. 5 2 HR HR HR HR R n/r N/r R n/r N/r R n/r n/r<</td><td>Proprietor RR FD WS BW/ FW AN PR SAA PA BAA SN RKN 11* 11 Garst Seed Co. 5 2 HR HR HR HR R N'r R n'r R n'r Pinoeer HiBred Int1 5 1 R HR HR HR R N'r N'r N'r N'r America's Alfalfa 5 2 HR HR HR HR N'r N'r</td></td<> <td>Proprietor RR FD WS BW/ FW/ AN PR SAA PA BAA SN RKN 11* 11 09 Garst Seed Co. 5 2 HR HR HR HR R n'r N'r</td> <td>Proprietor RR FD WS BW FW AN PR SAA PA BAA SN RKN 11* 11 09 10 Garst Seed Co. 5 2 HR HR</td> <td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RN 11* 11 09 10 10 00 10 10 00 10 10 00 10 10 00 10<td>Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10<!--</td--><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td></td></td>	ProprietorRRFDWSBWFWANPRRSAAPABAASNRKNGarst Seed Co.52HRHRHRHRHRRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/rRn/r	Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* Garst Seed Co. 5 2 HR HR HR HR R n/r N/r R n/r N/r R n/r n/r<	Proprietor RR FD WS BW/ FW AN PR SAA PA BAA SN RKN 11* 11 Garst Seed Co. 5 2 HR HR HR HR R N'r R n'r R n'r Pinoeer HiBred Int1 5 1 R HR HR HR R N'r N'r N'r N'r America's Alfalfa 5 2 HR HR HR HR N'r N'r	Proprietor RR FD WS BW/ FW/ AN PR SAA PA BAA SN RKN 11* 11 09 Garst Seed Co. 5 2 HR HR HR HR R n'r	Proprietor RR FD WS BW FW AN PR SAA PA BAA SN RKN 11* 11 09 10 Garst Seed Co. 5 2 HR	Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RN 11* 11 09 10 10 00 10 10 00 10 10 00 10 10 00 10 <td>Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10<!--</td--><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td></td>	Proprietor RR FD VS BW FW AN PRR SAA PA BAA SN R/N 11* 01 01 10 09 10 10 09 10 10 09 10 10 09 10 10 09 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 10 00 10 </td <td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr NR</td> <td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<></td>	Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11° 91 0 11 08 09 10 11 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr	Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11 ¹ 01 11 08 00 10 11 10 Garst Seed Co. 5 5 2 HR HR HR Nr R nr <td< td=""><td>Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr Nr</td><td>Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10<td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td><td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td></td></td<>	Proprietor RR FD WS BW FW AN PRR SAA PA BAA SN RKN 11* 11 0910 11 00910 11 1011 Garsi Seed Co. 5 2 HR HR HR HR HR Nr R nr Nr R nr Nr R Nr	Proprietor RR FD WS BW FW AN PAR BAA SN RKN 11* 11 09 10 11 00 10 11 10 <td>Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11</td> <td>Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10</td>	Proprietor RR FO VIS BW FW AN PRE SAA PA BAA SN RKN 11* 11 09 10 11 08 10 11 08 10 11 08 10 11 08 10 11 08 10 11 10 10 10 11 10 11 08 10 11 10 10 10 10 11 10 11 08 10 11 10 11 08 10 11 10 11 08 10 11 10 11 10 11 08 10 11 10 11 08 10 11 11 11 11 11 11 11 11 11 10 11 10 11	Proprietor RFD WS RW VM PRR SAA PA BAA SN RKN 11* 11 09 10 11 10

 \exists

New Mexico St. Univ. College of Agricultural, Consumer and Environmental Sciences. Agric. Exp. Stn and Coop. Ext. Ser.

Table 9 continued on next page

														Las C	ruces			Τ									
Table 9 (cont.). Chara	acteristics and performance of alfalfa					Varie	etal C	harad	cterist	ics ¹				20	10 ²	Ar	tesi	а	L	.os l	un	as		Far	min	gto	n
varieties across year	rs and tests in New Mexico.							Pest	t resis	tanc	е			F ³	L	2	008	;	2	007		200	9	20	07	2	2009
Variety	Proprietor	RR	FD	ws	BW	FW	AN	PRR	SAA	PA	BAA	SN	RKN	11 ⁴	11	09	10	11 0	8 0'	9 10	11	10 1	1 08	3 09	10 1	11	0 11
SW6403	S & W Seeds		7	n/r	LR	HR	MR	MR	R	MR	HR	n/r	R						*	*							
WL442	W-L Research		7	n/r	R	HR	HR	HR	HR	HR	HR	HR	n/r						*	*							
CW058071	CalWest Seed		8	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r													T	
Dura 843	Croplan Genetics		8	n/r	MR	HR	n/r	HR	HR	HR	HR	R	n/r						T			*				1	*
GT 13R	America's Alfalfa		8	n/r	MR	HR	R	HR	HR	HR	R	R	n/r					3	* *	*	**						
HybriForce-800	Dairyland Seed Co.		8	n/r	MR	HR	HR	R	n/r	MR	n/r	HR	R			*		**								T	
WL530HQ	W-L Research		8	5	MR	MR	HR	HR	HR	HR	HR	R	n/r														
WL535HQ	W-L Research		8	6	R	HR	R	HR	HR	HR	HR	R	R														
59N59	Pioneer HiBred Int'l		9	n/r	LR	R	R	HR	HR	HR	R	LR	HR			**	**	*			\square					T	
Magna 901	Dairyland Seed Co.		9	n/r	MR	HR	MR	HR	HR	HR	R	R	R						T							T	
PGI 908-S	Producer's Choice Seed		9	n/r	R	HR	HR	h	n/r	HR	HR	R	HR								\square					T	
NM0306	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	*							\square		*		:	*	
NM0313	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r								\square		*		:	*	
NM07-0306	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r		*												
NM07227	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r		*						\square					T	
NM07235	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r		*						\square					T	
NM07237	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r								\square					T	
NM07240	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	*					T							T	
NM08195	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r		*						\square					T	
NM08196	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r								\square					T	
NM08231	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r		*				T							T	
NM08241	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r								\square					T	
NM08244	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	*							\square					T	
NM082581	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	*							\square					T	
NM08281	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r														
NM10-0307	New Mexico State University		n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	**													
1																		_		_	_	_			_	-	_

¹RR=Roundup Ready if "Y"; WS=Winter Survival (1=No injury, 6=Dead plants), FD=Fall Dormancy (2=Vernal, 3=5246, 4=Legend, 5=Archer, 6=ABI 700, 7=Dona Ana, 8=Pierce, 9-CUF101, 10=UC1887), BW=Bacterial wilt, PRR=Phytophthora root rot, FW=Fusarium wilt, AN=Anthracnose, SAA=Spotted alfalfa aphid, PA=Pea aphid, BAA=Blue alfalfa aphid, SN=Stem nematode, RKN=Rootknot nematode (southern); (S=Susceptible, LR=Low resistance, MR=Moderate resistance, R=Resistant, HR=High resistance).

n/r indicates either that the variety was not rated for that characteristic or no rating was available.

²Establishment year.

³S=Standard flood irrigation approximately every 14 days, L=Limited flood irrigation approximately every 28 days.

⁴Harvest year.

Shaded boxes indicate that the variety was not in the test.

*Highest yielding variety in the test for that year.

*Not significantly different from the highest yielding variety in the test for that year.

L.M. Lauriault, I.M. Ray, C.A. Pierce, R.P. Flynn, M.K. O'Neill, and T. Place

New Mexico St. Univ. College of Agricultural, Consumer and Environmental Sciences. Agric. Exp. Stn and Coop. Ext. Ser.

Number	Title
A-114	Test your soil
A-122	Soil test interpretations
A-123	Sampling for plant tissue analysis
A-129	Nitrogen fixation by legumes
A-130	Inoculation of legumes
A-131	Certified seed
A-133	Calculating fertilizer costs
A-134	Selecting synthetic fertilizers in New Mexico
A-137	Soil analysis: A key to soil nutrient management
A-145	Certified noxious weed free program
A-325	Managing weeds in alfalfa
A-326	Downy mildew on alfalfa
A-333	User manual of the alfalfa yield predictor
A-334	Beet armyworm in New Mexico Hay
A-335	Variegated cutworm in New Mexico Hay
BL-796	Perennial cool-season forage legume performance in diverse soil moisture treatments, Southern
CR-585	Species selection and establishment for irrigated pastures in New Mexico
CR-586	Grazing systems and management for irrigated pastures in New Mexico
CR-633	Using a computer application to predict irrigated alfalfa yield
CR-641	Hay quality, sampling and testing
CR-642	Silage microbial inoculants: Use in hot weather conditions
CR-644	Assessing alfalfa stands after winter injury, freeze damage, or any time renovation is considered in New Mexico
CR-646	Managing alfalfa during drought
CR-654	Selecting alfalfa varieties for New Mexico
RR-766	Furrow-irrigated alfalfa dry matter yield is not affected by different seeding rates in the Southern High Plains, USA

Table 10. New Mexico State University Agricultural Experiment Station and Cooperative Extension Service publications related to alfalfa management.

These publications, and alfalfa variety test reports from previous years, are available from your county office of the NMSU Cooperative Extension Service or online at http://forages.nmsu.edu/resources.html and aces.nmsu.edu/pubs/