

New Mexico **2017 Corn and Sorghum** Performance Tests



College of Agricultural, Consumer and Environmental Sciences
Agricultural Experiment Station | Cooperative Extension Service

**New Mexico
2017
Corn and Sorghum Performance Tests**

New Mexico State University
Agricultural Science Centers
at
Artesia, Clovis, Farmington, Los Lunas, and Tucumcari

Department of Extension Plant Sciences

and

Department of Plant and Environmental Sciences

Agricultural Experiment Station/Cooperative Extension Service
College of Agricultural, Consumer and Environmental Sciences
New Mexico State University

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M.M. West, Agricultural Research Scientist, Agricultural Science Center at Farmington
C. Havlik and M. Place, Senior Research Assistant and Farm/Ranch Manager, respectively, Agricultural Science Center at Los Lunas
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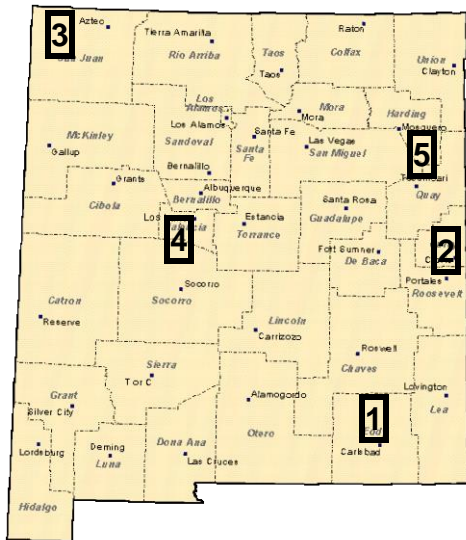
New Mexico 2017 Corn and Sorghum Performance Tests

INTRODUCTION

Performance tests for grain corn, grain sorghum, forage corn, forage sorghum and sorghum sudangrass were conducted at the Agricultural Science Centers at Artesia, Clovis, Farmington, Los Lunas, and Tucumcari New Mexico in 2017 (Figure 1). This report contains information from all Agricultural Science Center corn and sorghum tests; however, it is possible that not all locations contain every test listed above.

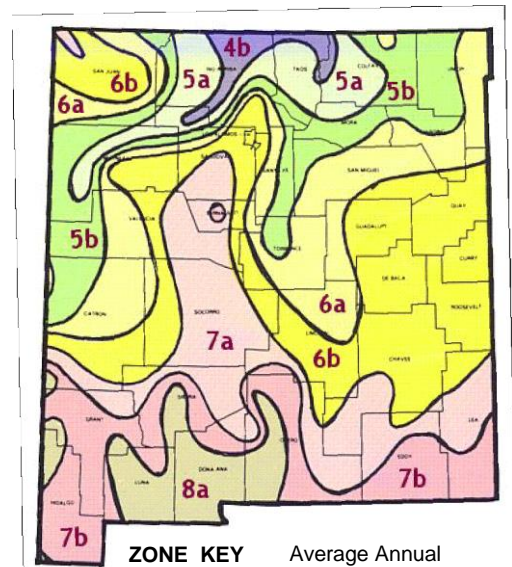
The New Mexico corn and sorghum performance testing program is part of an ongoing program to provide farmers, Extension workers and seed industry personnel with reliable, unbiased, information that will allow a valid comparison of corn and sorghum varieties/hybrids at various locations throughout the state. The state of New Mexico encompasses eight climate zones, all of which have some form of agricultural production (Figure 2). Variability in climate, soils, water and local production practices contribute to the need for crop performance tests throughout the state. Climate data for the Agricultural Science Center testing locations are shown in Table 1. Growers who use this report to make cropping decisions should rely primarily on results from tests near their location or in comparable climate zones.

Figure 1. Corn and sorghum testing locations.



1. Agricultural Science Center at Artesia
2. Agricultural Science Center at Clovis
3. Agricultural Science Center at Farmington
4. Agricultural Science Center at Los Lunas
5. Agricultural Science Center at Tucumcari

Figure 2. Climate zones in New Mexico.



ZONE KEY		Average Annual Minimum Temperature
a	b	
4		-25 to 20F
5		-20 to -15 / -15 to -10F
6		-10 to -5 / -5 to 0F
7		0 to -5 / -5 to 10F
8		10 to 15F

Table 1. Historical average monthly precipitation (inches) and temperatures (°F) for cooperating agricultural science centers.

	Artesia	Clovis	Farmington	Los Lunas	Tucumcari
Precipitation (inches)					
January	0.39	0.35	0.53	0.36	0.37
February	0.42	0.38	0.56	0.41	0.47
March	0.43	0.72	0.71	0.50	0.75
April	0.62	0.81	0.63	0.46	1.10
May	1.20	1.93	0.55	0.46	1.97
June	1.40	2.39	0.20	0.61	1.87
July	1.76	2.75	0.87	1.25	2.62
August	1.67	3.03	1.06	1.70	2.70
September	1.81	1.84	1.02	1.17	1.53
October	1.16	1.66	0.92	1.04	1.28
November	0.53	0.52	0.72	0.46	0.66
December	0.51	0.50	0.48	0.52	0.57
Total	11.88	16.89	8.25	8.93	15.90
Average Temperature (°F)					
January	40.5	37.7	30.3	34.3	38.5
February	45.2	41.3	36.2	40.2	42.3
March	52.0	48.0	44.0	47.2	49.4
April	60.5	56.2	51.0	54.8	57.7
May	69.1	64.5	60.0	63.4	66.3
June	77.7	74.0	70.5	72.7	75.8
July	79.8	76.5	75.7	76.9	79.2
August	78.4	74.8	73.3	74.8	77.4
September	71.7	68.5	66.0	67.4	70.7
October	61.1	58.3	54.0	55.9	59.7
November	48.9	46.5	42.0	43.6	47.7
December	40.8	38.8	31.3	35.1	39.4
Average	60.4	57.0	52.8	55.7	58.7

Source: Western Region Climate Center: <http://www.wrcc.dri.edu/summary/climsmnm.html>

TEST LOCATIONS

The New Mexico corn and sorghum performance testing program is supported by paid fees from the cooperating companies. Personnel at each location determine which tests will be conducted at their site and seed companies are invited to participate in those tests. Because seed company participation in individual tests and locations is voluntary, many of the hybrids/varieties that are grown in the state are not included in the tests, and different groups of hybrids/varieties are evaluated at the different locations.

A list of seed companies that participated in the 2017 fee-test program and relevant contact information are presented in Appendix A*. Additional company names and contacts may be added to the list of prospective companies by contacting the Agricultural Science Center at Los Lunas, 1036 Miller Rd, Los Lunas, NM 87031, (505) 865-7340, <http://loslunassc.nmsu.edu/>. Entry forms for the 2018 Corn and Sorghum Performance Tests will be mailed to seed companies in February 2018. Additional 2018 entry forms can be obtained from the address above.

TEST PROCEDURES

In an effort to provide readers with easily accessible information, procedural data for individual tests are presented in the 'Test Description' tables that immediately precede the summary tables of results for the tests. The 'Test Description' tables contain information on location, test design, management practices and growing conditions. Test description tables are designated with an 'A' suffix.

All of the Agricultural Science Center performance tests were replicated randomized complete block designs (RBD). Where appropriate, statistical analyses were used to calculate measures of least significant difference (LSD), coefficient of variation (CV) and F test values. All LSD's are reported at the 95% probability level. If the F test value is greater than 0.05 the LSD is not used. When the F test value is less than 0.05, it is appropriate to use the LSD value as a measure of the magnitude by which one entry must differ from another to be considered significantly different. The CV is a measure of variability relative to the mean. A CV below 10 generally indicates reliable data or methodology. CV's of 10 to 20 are indicators of normal variability for grain and forage tests.

Yields for the grain tests are presented on a bushel-per-acre or pound-per-acre basis, adjusted to a standard moisture content and bushel weight. Corn yields are calculated at a standard moisture of 15.5% and a bushel weight of 56 lb. Grain sorghum yields are calculated at a standard moisture of 14% and a bushel weight of 56 lb.

Dry and green (fresh) forage yields reported for the forage tests are in tons per acre. Moisture at harvest was calculated from a representative sample (approximately 1 lb.) from harvested plots. Samples from variety tests at the Agricultural Science Centers were dried in a forced air oven (150°F) for determination of moisture content. Moisture content determinations at Farmington were derived from air-dried samples. Sub-samples of the dried material from all locations were submitted to an NFTA-certified forage testing laboratory for nutrient composition analysis using near infrared

reflectance spectroscopy (NIRS). For these trials, milk production estimates were calculated using the University of Wisconsin Milk2000 and Milk2006 spreadsheet programs.

RESULTS

Results for the 2017 corn and sorghum variety tests are shown in Tables 2-15 below. Test procedures for each test are presented in tables designated with an 'A' at each location. Results are presented in tables designated with 'B' or 'C' suffixes. Within tables, hybrids and varieties are ranked according to grain yield or total dry forage yield. A glossary of terms used in the tables is presented in Appendix B.

The grain sorghum test at Tucumcari was not harvested due to extensive bird damage; the multi-cut forage sorghum/sorghum x sudangrass test at Tucumcari was not harvested due to poor plant establishment.

Table 2A. New Mexico 2017 Grain Corn Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																																																										
County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.	Previous Crop: fallow Planting Date: 18-May Harvest Date: 30-Oct Production Inputs <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>36 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>15 lb/a</td> <td>18-Apr</td> </tr> <tr> <td>P₂O₅</td> <td>50 lb/a</td> <td>18-Apr</td> </tr> <tr> <td>Zn</td> <td>3 qt/ac</td> <td>18-Apr</td> </tr> <tr> <td>Nitrogen</td> <td>152 lb/ac</td> <td>at plant</td> </tr> <tr> <td>S</td> <td>27.5 lb/ac</td> <td>at plant</td> </tr> <tr> <td>Nitrogen</td> <td>50 lb/ac</td> <td>2-Aug</td> </tr> <tr> <td>S</td> <td>9 lb/ac</td> <td>2-Aug</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/a</td> <td>at plant</td> </tr> <tr> <td>Balance Flex</td> <td>2 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Diflex</td> <td>8 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Charger Basic</td> <td>1 pt/ac</td> <td>at plant</td> </tr> <tr> <td>Glyphosate</td> <td>40 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Diflex</td> <td>10 oz/ac</td> <td>20-Jun</td> </tr> <tr> <td>Brawl</td> <td>1 pt/ac</td> <td>20-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td>Onager</td> <td>14 oz/ac</td> <td>20-Jun</td> </tr> <tr> <td>Belt SC</td> <td>3 oz/ac</td> <td>3-Aug</td> </tr> <tr> <td>Oberon</td> <td>8 oz/ac</td> <td>3-Aug</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	36 lb/a	carryover	Nitrogen	15 lb/a	18-Apr	P ₂ O ₅	50 lb/a	18-Apr	Zn	3 qt/ac	18-Apr	Nitrogen	152 lb/ac	at plant	S	27.5 lb/ac	at plant	Nitrogen	50 lb/ac	2-Aug	S	9 lb/ac	2-Aug	Herbicides:			Atrazine	1 pt/a	at plant	Balance Flex	2 oz/ac	at plant	Diflex	8 oz/ac	at plant	Charger Basic	1 pt/ac	at plant	Glyphosate	40 oz/ac	at plant	Diflex	10 oz/ac	20-Jun	Brawl	1 pt/ac	20-Jun	Insecticides:			Onager	14 oz/ac	20-Jun	Belt SC	3 oz/ac	3-Aug	Oberon	8 oz/ac	3-Aug	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>36.5</td><td></td><td></td></tr> <tr><td>February</td><td>45.8</td><td></td><td></td></tr> <tr><td>March</td><td>51.7</td><td></td><td></td></tr> <tr><td>April</td><td>55.5</td><td></td><td></td></tr> <tr><td>May 1-18</td><td>61.4</td><td>1.24</td><td>0.05</td></tr> <tr><td>June</td><td>74.1</td><td>1.02</td><td>1.80</td></tr> <tr><td>July</td><td>77.0</td><td>2.18</td><td>6.50</td></tr> <tr><td>August</td><td>71.0</td><td>7.87</td><td>0.21</td></tr> <tr><td>September</td><td>67.0</td><td>4.13</td><td>0.80</td></tr> <tr><td>October</td><td>56.5</td><td>2.04</td><td>0.00</td></tr> <tr><td>November</td><td>50.0</td><td></td><td></td></tr> <tr><td>December</td><td>38.0</td><td></td><td></td></tr> <tr> <td>Seasonal Precipitation:</td> <td></td> <td>18.5 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>9.4 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td></td> <td>1-May</td> <td></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>10-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>162 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May 1-18	61.4	1.24	0.05	June	74.1	1.02	1.80	July	77.0	2.18	6.50	August	71.0	7.87	0.21	September	67.0	4.13	0.80	October	56.5	2.04	0.00	November	50.0			December	38.0			Seasonal Precipitation:		18.5 in.		Total Irrigation:		9.4 in.		Date of Last Spring Frost:		1-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		162 days	
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 27,000 seed/a																																																																																																																																												

Table 2B. New Mexico 2017 Grain Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield	Moisture at Harvest	Test Weight	Plant Height	Ear Height	Silk Date
		bu/a	%	lb/bu	in	in	
Syngenta Seeds	G15Q98-3000 GT	289.3	16.0	60.6	120.1	53.2	25-Jul
Dyna-Gro Seed	D55VP77 RIB	274.8	16.0	61.8	105.4	53.4	21-Jul
Pioneer	1197	274.4	15.8	60.9	114.6	52.1	26-Jul
Syngenta Seeds	G11B63	272.2	16.0	60.6	106.8	47.2	24-Jul
Pioneer	1151	265.6	16.0	62.8	121.0	46.4	24-Jul
Dyna-Gro Seed	D58VC37 RIB	262.5	16.0	62.1	120.1	49.6	22-Jul
Dyna-Gro Seed	D57VP51 RIB	260.0	15.8	62.9	120.7	46.7	19-Jul
Syngenta Seeds	N76A-3000 GT	251.0	15.9	58.8	107.5	44.0	25-Jul
Pioneer	1602	246.4	16.0	62.8	121.4	51.2	23-Jul
Pioneer	1625	244.8	16.1	62.4	116.1	47.6	22-Jul
Dyna-Gro Seed	D54VC52 RIB	243.4	15.8	62.9	115.4	52.4	19-Jul
Dyna-Gro Seed	D52SS91	243.1	15.9	61.5	104.5	55.9	22-Jul
Dyna-Gro Seed	D57VP75VT3P	242.8	16.0	60.9	115.2	53.5	22-Jul
Syngenta Seeds	G18 D87-3111	241.1	16.1	62.3	113.0	52.2	22-Jul
Syngenta Seeds	N73Y-3111	238.6	15.9	58.4	112.3	49.2	24-Jul
Dyna-Gro Seed	D58QC72 RIB	227.6	16.2	62.5	119.2	42.3	25-Jul
	Trial Mean	254.8	15.9	61.4	114.6	49.8	23-Jul
	LSD (P > 0.05)	34.8	0.3	0.6	2.8	2.3	3
	CV	8.2	1.3	0.6	1.4	2.7	1.0
	F Test	0.0500	<.0001	<.0001	<.0001	<.0001	0.0056

Table 3A. New Mexico 2017 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: O'Neill, M.K., M.M. West, and D. Begay

Test Description

Location:	Management Practices:	Growing Conditions:
County/Area: San Juan	Previous Crop: 2016 fallow, 2015 W. Wheat	
Longitude: -108.306	Planting Date: 15-May	
Latitude: 36.6812	Harvest Date: 16-Nov	
Elevation: 5,640 ft.		
Soil Name: Wall		
Soil Texture: sandy loam		
Soil Depth: > 75 in.		
	Production Inputs	
	Rate	Date
	Fertilizer:	
	Dry Nitrogen 12.5 lb/a	1-May
	Nitrogen 17.5 lb/a	17-May
	Nitrogen 17.5 lb/a	2-Jun
	Nitrogen 17.5 lb/a	9-Jun
	Nitrogen 25.0 lb/a	19-Jun
	Nitrogen 25.0 lb/a	22-Jun
	Nitrogen 25.0 lb/a	6-Jul
	Nitrogen 25.0 lb/a	13-Jul
	Nitrogen 12.5 lb/a	19-Jul
	Nitrogen 12.5 lb/a	20-Jul
	Nitrogen 12.5 lb/a	27-Jul
	Nitrogen 12.5 lb/a	28-Jul
	Nitrogen 25.0 lb/a	4-Aug
	Total Nitrogen 240.0 lb/a	
	Dry P ₂ O ₅ 59 lb/a	1-May
	Dry K ₂ O 68 lb/a	1-May
	ZnSO ₄ 0 lb/a	1-May
	Herbicides:	
	DiFlexx 16 oz/a	18-Jun
	Aatrex 4L 1 qt/a	18-Jun
	Super Spread MSO 12.8 oz/a	18-Jun
Test Design:		
Replications: 4		
Plot Length: 20 ft.		
Rows per Plot: 4		
Row Spacing: 30 in.		
Seeding Rate: 36,590 seeds/a		
Harvest area: 2 row 20 feet long		
		Average
		Temp. Precip. Irrigation
		°F in. in.
		January
		February
		March
		April
		May 58.3 0.31 2.4
		June 73.4 0.02 6.2
		July 77.4 2.51 6.5
		August 73.4 0.11 4.8
		September 66.7 1.57 1.8
		October 54.6 0.08
		November
		December
		Seasonal Precipitation 4.6 in.
		Total Irrigation 21.7 in.
		Date of Last Spring Frost: 19-May
		Date of First Fall Frost: 25-Sep
		Frost Free Period: 129 days

Table 3B. New Mexico 2017 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield bu/a	Moisture at Harvest %	Test Weight lb/bu	Plant Height in	Ear Height in	Silk Date	Plant Population #/ac
Dyna-Gro Seed	D39DC43 RIB	235.8	11.0	59.1	99	38	25-Jul	34,521
Syngenta Seeds	G03C84-3120	231.6	10.6	58.2	102	45	28-Jul	33,650
DuPont Pioneer	P0157AM	231.0	11.5	60.2	106	42	28-Jul	31,254
Syngenta Seeds	G05B91-3010	226.4	11.0	59.1	106	46	27-Jul	31,037
Mycogen Seeds Dow AgroSciences	MY04Y97	215.2	10.9	57.7	100	41	28-Jul	31,363
DuPont Pioneer	P0365AM	213.6	11.2	59.3	108	42	28-Jul	29,948
Dyna-Gro Seed	D41SS71 RIB	213.2	10.9	59.2	104	47	28-Jul	33,759
Mycogen Seeds Dow AgroSciences	MY00J47	212.4	11.4	59.3	101	42	26-Jul	34,848
Syngenta Seeds	G97N86-3110	211.7	10.5	59.8	103	48	24-Jul	33,106
DuPont Pioneer	P9608AM	211.0	10.8	60.0	103	39	26-Jul	33,432
Mycogen Seeds Dow AgroSciences	MY97R57	210.5	11.3	59.1	98	38	25-Jul	32,017
Syngenta Seeds	G01D24-3120	209.9	11.1	57.6	104	44	26-Jul	33,541
Mycogen Seeds Dow AgroSciences	MY01D87	206.5	11.6	60.4	101	43	24-Jul	32,997
DuPont Pioneer	P9998AM	204.1	10.9	59.3	100	39	27-Jul	32,452
Dyna-Gro Seed	D44VC36 RIB	203.8	10.9	59.0	104	43	28-Jul	33,759
AgVenture	EXP157997AM	199.6	10.8	58.9	105	45	28-Jul	31,363
AgVenture	EXP163027YHB	198.7	10.8	59.7	104	42	27-Jul	32,126
Syngenta Seeds	G96V99-3120	196.9	11.0	59.1	108	45	26-Jul	33,323
DuPont Pioneer	P9697AM	196.7	10.8	59.3	104	39	25-Jul	30,601
Rob See Co	IC5203-3120	196.3	10.8	60.6	108	49	27-Jul	32,126
AgVenture	EXP167047CYXR	194.5	10.8	59.6	104	42	27-Jul	26,136
Rob See Co	IC4848-3000GT	193.5	10.7	57.6	102	40	27-Jul	32,997
Syngenta Seeds	G95D32-3110	192.7	11.0	60.1	106	41	25-Jul	34,195
Syngenta Seeds	G98L17-3000GT	192.1	11.0	57.6	107	46	27-Jul	34,086
DuPont Pioneer	P0589AM	192.1	10.9	59.4	100	40	27-Jul	32,452
Syngenta Seeds	G06Z97-3102	185.1	10.8	59.2	101	43	26-Jul	32,561
Mycogen Seeds Dow AgroSciences	MY05C67	183.9	11.0	58.9	110	49	29-Jul	33,323
Rob See Co	IC5296-3120	181.0	11.2	57.9	105	42	27-Jul	32,670
DuPont Pioneer	P0657AM	180.0	11.5	60.1	109	43	28-Jul	29,839
Dyna-Gro Seed	D45SS65 RIB	179.5	10.8	60.7	104	50	25-Jul	34,086
Rob See Co	RC5112-3011A	176.8	11.0	59.0	111	44	27-Jul	32,561
Mycogen Seeds Dow AgroSciences	MY02J57	174.0	11.2	58.4	109	42	25-Jul	32,126
Rob See Co	IC4570-3110	169.2	10.9	60.9	104	39	24-Jul	32,561
	Trial Mean	200.6	11.0	59.2	104	43	26-Jul	32,449
	LSD	NS	0.3	1.0	NS	7	-	2,270
	LSD P >	0.05	0.05	0.05	0.05	0.05	-	0.05
	CV	20.0	2.2	1.2	5.5	12.1	-	5.0
	F Test	0.7220	0.0001	0.0001	0.1299	0.0493	-	0.0001

Table 4A. New Mexico 2017 Full Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: O'Neill, M.K., M.M. West, and D. Begay

Test Description

Location:	Management Practices:	Growing Conditions:		
County/Area: San Juan	Previous Crop: 2016 fallow, 2015 W. Wheat			
Longitude: -108.306	Planting Date: 15-May			
Latitude: 36.6812	Harvest Date: 16-Nov			
Elevation: 5,640 ft.				
Soil Name: Wall				
Soil Texture: sandy loam				
Soil Depth: > 75 in.				
	Production Inputs			
	<u>Rate</u>			
	<u>Date</u>			
	Fertilizer:			
	Dry Nitrogen 12.5 lb/a			
	Nitrogen 17.5 lb/a			
	Nitrogen 17.5 lb/a			
	Nitrogen 17.5 lb/a			
	Nitrogen 25.0 lb/a			
	Nitrogen 25.0 lb/a			
	Nitrogen 25.0 lb/a			
	Nitrogen 25.0 lb/a			
	Nitrogen 25.0 lb/a			
	Nitrogen 12.5 lb/a			
	Nitrogen 12.5 lb/a			
	Nitrogen 12.5 lb/a			
	Nitrogen 12.5 lb/a			
	Nitrogen 25.0 lb/a			
	Total Nitrogen 240.0 lb/a			
	Dry P ₂ O ₅ 59 lb/a			
	Dry K ₂ O 68 lb/a			
	ZnSO ₄ 0 lb/a			
	Herbicides:			
	DiFlexx 16 oz/a			
	Aatrex 4L 1 qt/a			
	Super Spread MSO 12.8 oz/a			
Test Design:				
Replications: 4				
Plot Length: 20 ft.				
Rows per Plot: 4				
Row Spacing: 30 in.				
Seeding Rate: 36,590 seeds/a				
Harvest area: 2 row 20 feet long				
		<u>Average</u>		
		<u>Temp.</u>	<u>Precip.</u>	<u>Irrigation</u>
		°F	in.	in.
		January		
		February		
		March		
		April		
		May	58.3	0.31
		June	73.4	0.02
		July	77.4	2.51
		August	73.4	0.11
		September	66.7	1.57
		October	54.6	0.08
		November		
		December		
		Seasonal Precipitation		4.6 in.
		Total Irrigation		21.7 in.
		Date of Last Spring Frost:		19-May
		Date of First Fall Frost:		25-Sep
		Frost Free Period:		129 days

Table 4B. New Mexico 2017 Full Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield bu/a	Moisture	Test Weight lb/bu	Plant Height in	Ear Height in	Silk Date	Plant Population #/ac
			at Harvest %					
Dyna-Gro Seed	D52SS91 RIB	237.5	13.0	58.3	103	42	30-Jul	33,759
Dyna-Gro Seed	D54DC94 RIB	237.2	12.0	57.0	110	49	29-Jul	31,581
DuPont Pioneer	P1306 WHR	230.0	11.4	60.9	115	44	30-Jul	34,739
Dyna-Gro Seed	D57VP51 RIB	228.1	14.4	57.2	106	45	31-Jul	34,848
Warner Seeds, Inc.	W4409 VT2PRIB	218.8	11.9	57.9	113	45	28-Jul	31,254
DuPont Pioneer	P0805AM	206.2	11.8	60.8	108	42	29-Jul	32,017
Dyna-Gro Seed	D55VP77 RIB	204.6	13.4	56.7	103	43	31-Jul	33,868
Warner Seeds, Inc.	W4622 VT2PRIB	201.4	13.2	56.9	106	44	31-Jul	32,888
Dyna-Gro Seed	D58VC37 RIB	198.1	13.7	57.9	107	43	30-Jul	32,997
DuPont Pioneer	P0801AM	196.3	11.1	58.8	115	45	31-Jul	34,086
Dyna-Gro Seed	D49VC39 RIB	194.2	11.8	57.4	105	43	30-Jul	28,423
Dyna-Gro Seed	D58QC72 RIB	168.1	16.6	56.9	117	45	31-Jul	33,868
	Trial Mean	210.0	12.8	58.0	109	44	30-Jul	32,861
	LSD	39.6	0.7	1.0	7	NS	-	2,073
	LSD P >	0.05	0.05	0.05	0.05	0.05	-	0.05
	CV	13.1	3.9	1.2	4.8	8.7	-	4.4
	F Test	0.0328	0.0001	0.0001	0.0035	0.4703	-	0.0001

Table 5A. New Mexico 2017 Grain Corn Performance Test - Agricultural Science Center at Tucumcari

Investigators: L.M. Lauriault, A. Cunningham, J. Box, P.L. Cooksey, S. Jennings, J. Jennings, A. Williams, and A. McGeachy

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																					
County/Area: Quay Longitude: -103.68 Latitude: 35.20 Elevation: 4086 ft. Soil Name: Redona Soil Texture: Fine sandy loam Soil Depth: >60 in.	Previous Crop: Small grain forage Planting Date: 5/31/17 Harvest Dates: 10/24/17 Production Inputs <hr/> <table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>lb/a</td> <td></td> </tr> <tr> <td>P2O5</td> <td>lb/a</td> <td></td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Nitrogen</td> <td>lb/a</td> <td></td> </tr> <tr> <td colspan="3">Pesticides (herbicides and insecticides):</td> </tr> <tr> <td>Gramoxone</td> <td>3 pt/a</td> <td>12-May</td> </tr> <tr> <td>Roundup</td> <td>77 oz/a</td> <td>1-Jun</td> </tr> <tr> <td>Starane Ultra</td> <td>7.29 oz/a</td> <td>24-Jun</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	lb/a	carryover	Nitrogen	lb/a		P2O5	lb/a					Nitrogen	lb/a		Pesticides (herbicides and insecticides):			Gramoxone	3 pt/a	12-May	Roundup	77 oz/a	1-Jun	Starane Ultra	7.29 oz/a	24-Jun	<table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>38</td><td>1.02</td><td>0.00</td></tr> <tr><td>February</td><td>48</td><td>0.17</td><td>0.00</td></tr> <tr><td>March</td><td>56</td><td>2.16</td><td>1.00</td></tr> <tr><td>April</td><td>58</td><td>2.73</td><td>2.00</td></tr> <tr><td>May</td><td>64</td><td>1.82</td><td>0.00</td></tr> <tr><td>June</td><td>77</td><td>0.98</td><td>7.25</td></tr> <tr><td>July</td><td>82</td><td>1.58</td><td>5.00</td></tr> <tr><td>August</td><td>75</td><td>6.48</td><td>0.50</td></tr> <tr><td>September</td><td>70</td><td>2.65</td><td>1.00</td></tr> <tr><td>October</td><td>60</td><td>3.62</td><td>0.00</td></tr> <tr><td>November</td><td></td><td></td><td>0.00</td></tr> <tr><td>December</td><td></td><td></td><td>0.00</td></tr> </tbody> </table> Seasonal Precipitation 17.1 in. Total Seasonal Irrigation 13.8 in. Date of Last Spring Frost: 30-Apr Date of First Fall Frost: 10-Oct Frost Free Period: 163 days		Average Temp. °F	Precip. in.	Irrigation in.	January	38	1.02	0.00	February	48	0.17	0.00	March	56	2.16	1.00	April	58	2.73	2.00	May	64	1.82	0.00	June	77	0.98	7.25	July	82	1.58	5.00	August	75	6.48	0.50	September	70	2.65	1.00	October	60	3.62	0.00	November			0.00	December			0.00
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Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 29,000 seeds/ac																																																																																							

Table 5B. New Mexico 2017 Grain Corn Performance Test - Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	CRM	Plant Population	Grain Yield	Grain Yield	Moisture at Evaluation	Test wt.
		-----	Plants/ac	lb/ac	bu/ac	%	lb/bu
Dyna-GroSeed	D58VC37RIB	118	26281	8351	149	11.6	58.0
Dyna-GroSeed	D55VP77RIB	115	26681	7748	138	12.1	57.6
Syngenta Seeds	G11B63	111	25591	7428	133	12.6	55.6
Syngenta Seeds	G06Z97-3102	106	26245	7135	127	11.3	56.9
Dyna-GroSeed	D57VP51RIB	117	27334	7120	127	12.4	56.9
Dyna-GroSeed	D52SS91	112	27552	6520	116	12.4	58.1
Mycogen Seeds/Dow AgroSciences	MY04Y97	104	25265	6496	116	10.6	53.9
Rob See Co	IC5296-3120	102	24684	6394	114	10.9	53.0
Dyna-GroSeed	D49VC39RIB	109	20909	6370	114	10.8	56.3
DuPont Pioneer	P9697AM	96	26681	6169	110	10.4	57.0
Syngenta Seeds	G95D32-3110	95	24720	6031	108	10.1	57.3
DuPont Pioneer	P0365AM	103	26027	5625	100	11.7	56.5
Syngenta Seeds	N76A-3000GT	114	24067	5503	98	11.4	51.6
DuPont Pioneer	P0589AM	105	25156	5442	97	10.9	56.4
DuPont Pioneer	P0801AM	108	25156	5175	92	10.4	53.4
Rob See Co	IC4848-3000GT	98	24103	5107	91	10.9	54.7
Mycogen Seeds/Dow AgroSciences	MY00J47	100	26354	5074	91	10.8	54.8
Rob See Co	RC5112-3011A	101	24067	4397	79	10.7	55.8
			Trial Mean	25463	6208	111	88.5
			LSD P < 0.05	NS	2051	37	1.8
			CV	8.6	23.2	23.2	2.3
			F Test	0.1063	0.0244	0.0244	0.0009
						0.0009	0.0001

CRM = comparative relative maturity.

Moisture at Evaluation was measured after the corn was shelled, when it was weighed and evaluated for test weight, approximately 80 d after ears had been harvested

Table 6A. New Mexico 2017 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez

Test Description

Location:	Management Practices:	Growing Conditions:																																																																						
County/Area: Eddy Longitude: -104.38 Latitude: 32.75 Elevation: 3360 ft. Soil Name: Pima Soil Texture: silt loam/scl Soil Depth: 60 in.	Previous Crop: cotton Planting Date: 25-May Harvest Date: 9-Sep <hr/> Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td style="padding-left: 40px;">Nitrogen</td> <td style="text-align: center;">200 lb/a</td> <td style="text-align: center;">16-Jun</td> </tr> <tr> <td style="padding-left: 40px;">P₂O₅</td> <td style="text-align: center;">80 lb/a</td> <td style="text-align: center;">16-Jun</td> </tr> <tr> <td style="padding-left: 40px;">K₂O</td> <td style="text-align: center;">0 lb/a</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Zn</td> <td style="text-align: center;">2 lb/a</td> <td style="text-align: center;">16-Jun</td> </tr> </tbody> </table> Cultivation: 17-Jun Herbicides: Prowl H2O 2 pts/a Insecticides: None		Rate	Date	Fertilizer:			Nitrogen	200 lb/a	16-Jun	P ₂ O ₅	80 lb/a	16-Jun	K ₂ O	0 lb/a		Zn	2 lb/a	16-Jun	<hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td style="text-align: center;">43.9</td><td style="text-align: center;">0.89</td><td></td></tr> <tr><td>February</td><td style="text-align: center;">50.4</td><td style="text-align: center;">0.41</td><td></td></tr> <tr><td>March</td><td style="text-align: center;">57.7</td><td style="text-align: center;">0.02</td><td></td></tr> <tr><td>April</td><td style="text-align: center;">62.8</td><td style="text-align: center;">1.09</td><td></td></tr> <tr><td>May</td><td style="text-align: center;">67.3</td><td style="text-align: center;">0.30</td><td style="text-align: center;">4.00</td></tr> <tr><td>June</td><td style="text-align: center;">79.6</td><td style="text-align: center;">1.83</td><td style="text-align: center;">3.00</td></tr> <tr><td>July</td><td style="text-align: center;">81.1</td><td style="text-align: center;">1.49</td><td style="text-align: center;">10.00</td></tr> <tr><td>August</td><td style="text-align: center;">77.9</td><td style="text-align: center;">3.15</td><td style="text-align: center;">8.00</td></tr> <tr><td>September</td><td style="text-align: center;">73.4</td><td style="text-align: center;">1.92</td><td style="text-align: center;">2.00</td></tr> <tr><td>October</td><td style="text-align: center;">61.6</td><td style="text-align: center;">0.43</td><td></td></tr> <tr><td>November</td><td></td><td></td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> </tbody> </table> <hr/> Seasonal Precipitation ▲ 7.88 in. Total Irrigation 27.00 in. Date of Last Spring Frost: 30-Apr Date of First Fall Frost: 28-Oct Frost Free Period: 181 days		Average Temp. °F	Precip. in.	Irrigation in.	January	43.9	0.89		February	50.4	0.41		March	57.7	0.02		April	62.8	1.09		May	67.3	0.30	4.00	June	79.6	1.83	3.00	July	81.1	1.49	10.00	August	77.9	3.15	8.00	September	73.4	1.92	2.00	October	61.6	0.43		November				December			
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November																																																																								
December																																																																								
Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 40 in. Seeding Rate: 32,000 seed/a																																																																								

Table 6B. New Mexico 2017 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage t/a	65% Adj	Moisture	CP %	NDF %	NDFD 30hr %	Ash %	TDN %	NE _l Mcal/lb	Milk/ Ton lb/t	Milk/ Acre lb/a
			Green Forage t/a	at Harvest %								
Golden Acres Genetics	G7848 VT2PRO	8.1	23.1	58.5	7.7	60.5	69.6	6.6	61.0	0.535	2282	19487
Dyna-Gro Seed	D58SS65 RIB	8.0	22.9	60.0	7.8	61.1	72.0	5.9	64.1	0.565	2493	21360
Dyna-Gro Seed	D54VC52 RIB	7.8	22.3	60.2	8.3	61.9	72.0	5.6	64.4	0.569	2513	20703
Dyna-Gro Seed	D53VC47 RIB	7.6	21.7	58.0	7.3	58.8	69.2	6.3	60.3	0.529	2245	19801
Dyna-Gro Seed	D55VP77 RIB	7.5	21.4	54.1	7.8	59.9	69.8	6.0	61.9	0.546	2356	18022
Dyna-Gro Seed	D58QC72 RIB	7.5	21.4	61.8	7.4	62.1	68.6	5.8	61.3	0.541	2318	16683
Golden Acres Genetics	G7601	7.5	21.4	62.2	8.3	62.0	69.0	5.8	63.2	0.563	2464	19418
Golden Acres Genetics	G8738	7.2	20.6	62.9	8.5	61.2	66.9	5.8	61.1	0.545	2335	15977
Golden Acres Genetics	G6832 STX	6.9	19.7	62.9	7.8	60.5	67.7	5.8	60.8	0.539	2300	14994
	Trial Mean	6.1	17.4	60.1	7.9	60.4	68.5	7.8	65.3	0.583	2367	18494
	LSD	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	LSD P >	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	CV	18.2	17.5	8.6	9.3	3.1	4.3	30.8	9.1	3.7	3.8	6.1
	F Test	0.9555	0.8567	0.3210	0.4657	0.4833	0.4708	0.9325	0.4942	0.3104	0.2543	0.2740

Table 7A. New Mexico 2017 Forage Corn Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																																																										
County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.	Previous Crop: fallow Planting Date: 18-May Harvest Date: 5-Sep Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>36 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>15 lb/a</td> <td>18-Apr</td> </tr> <tr> <td>P₂O₅</td> <td>50 lb/a</td> <td>18-Apr</td> </tr> <tr> <td>Zn</td> <td>3 qt/ac</td> <td>18-Apr</td> </tr> <tr> <td>Nitrogen</td> <td>152 lb/ac</td> <td>at plant</td> </tr> <tr> <td>S</td> <td>27.5 lb/ac</td> <td>at plant</td> </tr> <tr> <td>Nitrogen</td> <td>50 lb/ac</td> <td>2-Aug</td> </tr> <tr> <td>S</td> <td>9 lb/ac</td> <td>2-Aug</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/a</td> <td>at plant</td> </tr> <tr> <td>Balance Flex</td> <td>2 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Diflex</td> <td>8 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Charger Basic</td> <td>1 pt/ac</td> <td>at plant</td> </tr> <tr> <td>Glyphosate</td> <td>40 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Diflex</td> <td>10 oz/ac</td> <td>20-Jun</td> </tr> <tr> <td>Brawl</td> <td>1 pt/ac</td> <td>20-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td>Onager</td> <td>14 oz/ac</td> <td>20-Jun</td> </tr> <tr> <td>Belt SC</td> <td>3 oz/ac</td> <td>3-Aug</td> </tr> <tr> <td>Oberon</td> <td>8 oz/ac</td> <td>3-Aug</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	36 lb/a	carryover	Nitrogen	15 lb/a	18-Apr	P ₂ O ₅	50 lb/a	18-Apr	Zn	3 qt/ac	18-Apr	Nitrogen	152 lb/ac	at plant	S	27.5 lb/ac	at plant	Nitrogen	50 lb/ac	2-Aug	S	9 lb/ac	2-Aug	Herbicides:			Atrazine	1 pt/a	at plant	Balance Flex	2 oz/ac	at plant	Diflex	8 oz/ac	at plant	Charger Basic	1 pt/ac	at plant	Glyphosate	40 oz/ac	at plant	Diflex	10 oz/ac	20-Jun	Brawl	1 pt/ac	20-Jun	Insecticides:			Onager	14 oz/ac	20-Jun	Belt SC	3 oz/ac	3-Aug	Oberon	8 oz/ac	3-Aug	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td style="text-align: center;">36.5</td><td></td><td></td></tr> <tr><td>February</td><td style="text-align: center;">45.8</td><td></td><td></td></tr> <tr><td>March</td><td style="text-align: center;">51.7</td><td></td><td></td></tr> <tr><td>April</td><td style="text-align: center;">55.5</td><td></td><td></td></tr> <tr><td>May 1-18</td><td style="text-align: center;">61.4</td><td style="text-align: center;">1.24</td><td style="text-align: center;">0.05</td></tr> <tr><td>June</td><td style="text-align: center;">74.1</td><td style="text-align: center;">1.02</td><td style="text-align: center;">1.80</td></tr> <tr><td>July</td><td style="text-align: center;">77.0</td><td style="text-align: center;">2.18</td><td style="text-align: center;">6.50</td></tr> <tr><td>August</td><td style="text-align: center;">71.0</td><td style="text-align: center;">7.87</td><td style="text-align: center;">0.21</td></tr> <tr><td>September 1-5</td><td style="text-align: center;">67.0</td><td style="text-align: center;">0.00</td><td style="text-align: center;">0.00</td></tr> <tr><td>October</td><td style="text-align: center;">56.5</td><td></td><td></td></tr> <tr><td>November</td><td style="text-align: center;">50.0</td><td></td><td></td></tr> <tr><td>December</td><td style="text-align: center;">38.0</td><td></td><td></td></tr> <tr> <td style="text-align: right;">Seasonal Precipitation:</td> <td></td> <td style="text-align: center;">12.3 in.</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Irrigation:</td> <td></td> <td style="text-align: center;">8.6 in.</td> <td></td> </tr> <tr> <td style="text-align: right;">Date of Last Spring Frost:</td> <td></td> <td colspan="2" style="text-align: center;">1-May</td> </tr> <tr> <td style="text-align: right;">Date of First Fall Frost:</td> <td></td> <td colspan="2" style="text-align: center;">10-Oct</td> </tr> <tr> <td style="text-align: right;">Frost Free Period:</td> <td></td> <td colspan="2" style="text-align: center;">162 days</td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May 1-18	61.4	1.24	0.05	June	74.1	1.02	1.80	July	77.0	2.18	6.50	August	71.0	7.87	0.21	September 1-5	67.0	0.00	0.00	October	56.5			November	50.0			December	38.0			Seasonal Precipitation:		12.3 in.		Total Irrigation:		8.6 in.		Date of Last Spring Frost:		1-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		162 days	
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 27000 seed/a																																																																																																																																												

Table 7B. New Mexico 2017 Forage Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Moisture			CP	NDF	NDFD		Ash	TDN	NE _i	Milk/Ton	Milk/Acre
		Dry Forage	Green Forage	at Harvest			48hr	Starch					
		t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
B-H Genetics	X17015 SS	9.3	29.7	68.8	10.0	44.2	58.9	25.3	3.6	65.0	0.667	3084	28568
Dyna-Gro Seed	D53VC47 RIB	9.0	28.3	68.2	9.4	43.3	62.8	29.7	4.2	67.2	0.692	3281	29470
Golden Acres Genetics	G7848 VT2 PRO	8.9	27.0	67.2	9.9	41.8	63.8	30.9	3.4	68.6	0.708	3384	29994
B-H Genetics	BH 8907 VT2P	8.8	29.8	70.4	9.5	46.5	61.0	25.6	3.7	66.0	0.679	3179	28054
Blue River Hybrids	70A47	8.8	29.3	70.0	10.1	43.8	61.8	28.3	4.1	66.5	0.685	3221	28317
Dyna-Gro Seed	D54VC52 RIB	8.7	25.8	66.3	9.6	41.2	60.3	32.0	3.4	66.9	0.689	3235	28046
B-H Genetics	BH 8636 SS	8.6	27.1	68.1	10.3	45.0	62.0	25.9	3.9	67.0	0.690	3255	28140
Dyna-Gro Seed	D58QC72 RIB	8.6	29.7	71.2	9.9	46.4	61.3	24.8	3.8	66.4	0.683	3206	27524
Master's Choice	MCT 6754	8.6	27.4	68.6	9.6	43.6	61.3	29.0	3.6	66.6	0.686	3225	27604
Sygenta Seeds	G15Q98-3000 GT	8.6	27.7	69.2	9.3	43.7	61.7	29.6	3.9	66.6	0.685	3226	27627
Sygenta Seeds	G14H66-3010A	8.5	27.8	69.5	9.1	42.4	63.2	30.7	3.8	67.6	0.697	3312	28063
Sygenta Seeds	G14V04-3000 GT	8.4	26.1	67.8	9.1	43.5	61.0	30.7	3.4	66.4	0.683	3203	27046
B-H Genetics	BH 8590 VT2P	8.4	26.4	68.1	9.1	43.3	59.8	30.5	3.2	66.4	0.684	3199	26895
Dyna-Gro Seed	D55VP77 RIB	8.4	28.8	70.8	9.9	42.6	61.0	29.2	3.7	67.0	0.689	3246	27286
Master's Choice	MCT 6733	8.4	27.3	69.3	9.5	44.3	61.9	27.4	3.9	66.8	0.687	3241	27094
B-H Genetics	BH 8732 VTTP	8.4	27.1	69.2	9.4	43.9	62.7	28.9	3.2	67.6	0.696	3303	27600
Golden Acres Genetics	G8738	8.4	27.8	69.8	10.1	43.6	61.1	27.6	3.6	66.8	0.687	3232	26986
Blue River Hybrids	66G25	8.3	27.5	69.7	9.9	42.8	61.5	28.3	3.9	67.2	0.692	3268	27312
Golden Acres Genetics	G6832 STX	8.3	28.2	70.5	9.4	45.5	60.1	27.3	3.6	65.9	0.677	3162	26413
Golden Acres Genetics	G7601	8.2	26.7	69.1	9.7	42.0	62.7	29.5	3.7	67.7	0.697	3312	27278
B-H Genetics	BH 8988 W/GT	8.2	28.1	70.9	9.7	45.9	61.8	25.0	3.5	66.7	0.686	3233	26431
Sygenta Seeds	G18D87-3111	8.1	27.0	69.7	9.3	42.3	62.1	30.2	3.3	67.5	0.695	3291	26803
B-H Genetics	BH 8721 VT2P	8.1	27.1	70.2	9.8	43.3	62.6	28.5	3.8	67.4	0.694	3292	26567
Sygenta Seeds	G13N18-3111	7.8	27.9	72.1	9.4	44.5	62.2	28.8	3.8	66.7	0.687	3241	25316
Dyna-Gro Seed	D58SS65 RIB	7.8	27.5	71.6	9.4	45.9	60.7	27.4	3.4	66.4	0.684	3205	25022
Master's Choice	MCT 6583	7.7	26.7	71.0	9.2	44.4	61.2	27.9	4.2	66.0	0.679	3181	24575
Blue River Hybrids	62G22	7.5	25.4	70.7	9.7	44.0	61.8	28.8	3.8	67.0	0.690	3258	24306
	Trial Mean	8.4	27.6	69.5	9.6	43.8	61.6	28.4	3.7	66.8	0.688	3240	27197
	LSD	1.1	3.3	0.0	0.6	3.6	1.8	4.0	0.8	1.3	0.014	106	3770
	LSD P >	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.050	0.05	0.05
	CV	7.9	7.3	2.4	3.8	5.0	1.8	8.6	12.6	1.2	1.3	2.0	8.5
	F Test	0.3778	0.4981	0.0150	0.0018	0.2719	0.0005	0.0279	0.4220	0.0077	0.0064	0.0036	0.5004

Table 8A. New Mexico 2017 Forage Corn Performance Test - Agricultural Science Center at Farmington

Investigators: O'Neill, M.K., M.M. West, and D. Begay

Test Description

Location:	Management Practices:	Growing Conditions:			
County/Area: San Juan	Previous Crop: 2016 fallow, 2015 W. Wheat	Average			
Longitude: -108.306	Planting Date: 15-May	Temp.	Precip.	Irrigation	
Latitude: 36.6812	Harvest Date: 11-Sep	°F	in.	in.	
Elevation: 5,640 ft.		January			
Soil Name: Wall		February			
Soil Texture: sandy loam		March			
Soil Depth: > 75 in.		April			
		May	58.3	0.31	2.4
		June	73.4	0.02	6.2
		July	77.4	2.51	6.5
		August	73.4	0.11	4.8
		September	66.7	0.01	1.5
		October			
		November			
		December			
		Seasonal Precipitation		3.0 in.	
		Total Irrigation		21.4 in.	
		Date of Last Spring Frost:		19-May	
		Date of First Fall Frost:		25-Sep	
		Frost Free Period:		129 days	
Test Design:	Production Inputs				
Replications: 4	Rate	Date			
Plot Length: 20 ft.	Fertilizer:				
Rows per Plot: 4	Dry Nitrogen 12.5 lb/a	1-May			
Row Spacing: 30 in.	Nitrogen 17.5 lb/a	17-May			
	Nitrogen 17.5 lb/a	2-Jun			
	Nitrogen 17.5 lb/a	9-Jun			
	Nitrogen 25 lb/a	19-Jun			
	Nitrogen 25 lb/a	22-Jun			
	Nitrogen 25 lb/a	6-Jul			
	Nitrogen 25 lb/a	13-Jul			
	Nitrogen 12.5 lb/a	19-Jul			
	Nitrogen 12.5 lb/a	20-Jul			
	Nitrogen 12.5 lb/a	27-Jul			
	Nitrogen 12.5 lb/a	28-Jul			
	Nitrogen 25 lb/a	4-Aug			
	Total Nitrogen 240 lb/a				
	Dry P ₂ O ₅ 59 lb/a	1-May			
	Dry K ₂ O 68 lb/a	1-May			
	ZnSO ₄ 0 lb/a	1-May			
	Herbicides:				
	DiFlexx 16 oz/a	18-Jun			
	Aatrex 4L 1 qt/a	18-Jun			
	Super Spread M 12.8 oz/a	18-Jun			

Table 8B. New Mexico 2017 Forage Corn Performance Test - Agricultural Science Center at Farmington

Results

Brand/Company Name	Hybrid/Variety Name	Moisture					CP	NDF	NDFD			Ash	TDN	Milk/Ton	Milk/Acre
		Dry Forage	Green Forage	at Harvest	Plant Height	Ear Height			48hr	Starch	%				
		t/a	t/a	%	in	in	%	%	%	%	%	%	lb/t	lb/a	
Dyna-Gro Seed	D58QC72 RIB	17.1	41.0	58.0	124	49	8.0	43.5	63.7	23.6	5.8	63.4	3,013	51,725	
Dyna-Gro Seed	D53VC47 RIB	14.7	36.9	60.2	109	39	8.0	41.8	65.1	26.0	5.7	64.9	3,135	46,458	
Syngenta Seeds	G07B39-3111A	14.5	38.1	61.9	116	50	7.9	44.3	65.6	22.8	6.3	64.1	3,080	44,902	
Syngenta Seeds	G01D24-3120	13.1	35.1	62.5	104	39	6.9	42.0	62.0	23.5	5.8	60.8	2,811	36,964	
Syngenta Seeds	G11B63-3010A	13.0	31.9	59.6	112	42	7.9	43.0	66.8	23.7	6.0	64.3	3,100	40,859	
Syngenta Seeds	G13N18-3111	12.9	37.1	65.6	107	45	8.3	39.8	66.3	26.8	5.5	65.2	3,161	41,405	
Dyna-Gro Seed	D54DC94 RIB	12.6	31.9	60.6	107	43	7.7	44.5	64.7	23.3	6.2	63.9	3,056	38,793	
Dyna-Gro Seed	D58SS65 RIB	12.5	35.6	64.6	107	46	7.7	47.0	62.6	20.0	6.3	61.7	2,881	35,896	
Syngenta Seeds	G07H81-3010A	12.3	28.7	57.2	106	42	7.7	41.8	63.8	26.0	5.7	64.2	3,070	37,712	
Dyna-Gro Seed	D55VP77 RIB	10.8	29.4	62.8	102	43	8.4	41.1	65.1	27.1	5.6	65.9	3,201	34,418	
	Trial Mean	13.3	34.1	60.9	109	44	7.9	42.9	64.7	24.5	5.9	64.1	3,070	40,969	
	LSD	NS	NS	10.5	20	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	LSD P >	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
	CV	23.4	20.1	5.9	6.2	11.3	9.4	7.9	3.0	16.0	8.5	3.6	5.7	26.1	
	F Test	0.2776	0.1754	0.0316	0.0073	0.0959	0.7478	0.1784	0.0913	0.2950	0.1889	0.4443	0.4126	0.4465	

Table 9A. New Mexico 2017 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

<p>Location:</p> <p>County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.</p>	<p>Management Practices:</p> <p>Previous Crop: fallow Planting Date: 20-Jun Harvest Date: 8-Nov</p> <p>Production Inputs</p> <table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>38 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>30 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>P₂O₅</td> <td>20 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>S</td> <td>4.4 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>Nitrogen</td> <td>46 lb/ac</td> <td>21-Jun</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Sharpen</td> <td>1.5 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Atrazine</td> <td>1.5 pt/ac</td> <td>at plant</td> </tr> <tr> <td>Glyphosate</td> <td>48 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Brawl</td> <td>1.5 pt/ac</td> <td>21-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td>Sivanto</td> <td>7 oz/ac</td> <td>30-Aug</td> </tr> <tr> <td>Dimilin</td> <td>2 oz/ac</td> <td>21-Jun</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	38 lb/a	carryover	Nitrogen	30 lb/ac	18-Apr	P ₂ O ₅	20 lb/ac	18-Apr	S	4.4 lb/ac	18-Apr	Nitrogen	46 lb/ac	21-Jun	Herbicides:			Sharpen	1.5 oz/ac	at plant	Atrazine	1.5 pt/ac	at plant	Glyphosate	48 oz/ac	at plant	Brawl	1.5 pt/ac	21-Jun	Insecticides:			Sivanto	7 oz/ac	30-Aug	Dimilin	2 oz/ac	21-Jun	<p>Growing Conditions:</p> <table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>36.5</td><td></td><td></td></tr> <tr><td>February</td><td>45.8</td><td></td><td></td></tr> <tr><td>March</td><td>51.7</td><td></td><td></td></tr> <tr><td>April</td><td>55.5</td><td></td><td></td></tr> <tr><td>May</td><td>61.4</td><td></td><td></td></tr> <tr><td>June 20-30</td><td>74.1</td><td>0.74</td><td>1.0</td></tr> <tr><td>July</td><td>77.0</td><td>2.18</td><td></td></tr> <tr><td>August</td><td>71.0</td><td>7.87</td><td></td></tr> <tr><td>September</td><td>67.0</td><td>4.13</td><td></td></tr> <tr><td>October</td><td>56.5</td><td>2.04</td><td></td></tr> <tr><td>November 1-8</td><td>50.0</td><td>0.00</td><td></td></tr> <tr><td>December</td><td>38.0</td><td></td><td></td></tr> <tr> <td>Seasonal Precipitation:</td> <td></td> <td>17.0 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>1.0 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td></td> <td>1-May</td> <td></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>10-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>162 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May	61.4			June 20-30	74.1	0.74	1.0	July	77.0	2.18		August	71.0	7.87		September	67.0	4.13		October	56.5	2.04		November 1-8	50.0	0.00		December	38.0			Seasonal Precipitation:		17.0 in.		Total Irrigation:		1.0 in.		Date of Last Spring Frost:		1-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		162 days	
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<p>Test Design:</p> <p>Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 29000 seed/ac</p>																																																																																																																							

Table 9B. New Mexico 2017 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield bu/a	Grain Yield lb/a	Moisture	Test Weight lb/bu	Plant Height in	Head Exertion in	Lodging %	Heading Date
				at Harvest %					
Pioneer	85P05	143.4 ***	8033 ***	19.8 ***	53.9 *	17.6 *	5.8	0	14-Aug *
DeKalb	37-07	134.9 *	7558 *	18.3 *	51.7 *	22.7	8.0 *	0	15-Aug *
NuTech Seed, LLC	GS 663	133.6 *	7485 *	18.1 *	53.4 *	26.3 *	7.2	0	13-Aug *
Alta Seeds	ADV G1150	133.5 *	7475 *	18.0 *	50.2	24.9	8.7 *	0	17-Aug *
Dyna-Gro Seed	M60GB31	132.8 *	7438 *	17.9 *	54.3 *	25.5	8.3 *	0	15-Aug *
Dyna-Gro Seed	GX17818	132.4 *	7418 *	17.8 *	52.1 *	29.2 ***	7.5 *	0	21-Aug *
Dyna-Gro Seed	M60GB88	130.5 *	7310 *	17.5 *	50.5	26.7 *	7.5 *	0	6-Jul
NuTech Seed, LLC	GS 693	129.9 *	7271 *	17.4	54.2 *	27.0 *	6.8	0	19-Aug *
Chromatin, Inc.	SP 68M57	129.1 *	7229 *	17.3	52.6 *	23.6	5.9	0	16-Aug *
NuTech Seed, LLC	GS 636	128.7 *	7208 *	17.2	53.6 *	24.1	8.2 *	0	19-Aug *
Alta Seeds	AG 1203	124.6	6976	16.5	53.8 *	24.5	7.9 *	0	19-Aug *
Dyna-Gro Seed	M60GB31	124.4	6966	16.5	53.5 *	24.0	6.8	0	16-Aug *
Dyna-Gro Seed	GX16535	124.2	6958	16.5	52.0 *	27.3 *	8.7 *	0	18-Aug *
Dyna-Gro Seed	M74GB17	115.9	6490	15.1	54.1 *	27.4 *	7.6 *	0	21-Aug ***
Chromatin, Inc.	SP 34A19	114.5	6413	14.9	45.6	19.8	7.8 *	0	13-Aug *
Chromatin, Inc.	SP 31A15	113.6	6364	14.8	44.3	23.3	7.3	0	11-Aug *
NuTech Seed, LLC	GS 725	113.4	6350	14.8	54.4 ***	25.7 *	7.1	0	20-Aug *
Chromatin, Inc.	SP 33S40	112.2	6284	14.6	53.9 *	22.5	9.7 *	0	17-Aug *
Dyna-Gro Seed	M59GB57	106.6	5973	13.7	50.9	20.1	7.1	0	11-Aug *
Chromatin, Inc.	CHR0163	99.1	5551	12.5	48.0	19.5	4.2	0	13-Aug *
Chromatin, Inc.	SP 25C10	83.4	4669	10.3	49.1	14.7	8.5 *	0	8-Aug *
Chromatin, Inc.	CHR0039	83.4	4669	10.3	47.0	15.7	9.8 ***	0	9-Aug *
	Trial Mean	119.8	6709	15.8	51.4	23.7	7.6	-	13-Aug
	LSD (P > 0.05)	15.0	842	2.4	3.2	4.2	2.5	-	22
	CV	7.6	7.6	9.2	3.7	10.8	19.7	-	6.0
	F Test	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.02	-	0.1859

*** Highest numerical value in the column.

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

Table 10A. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez

Test Description

Location:	Management Practices:	Growing Conditions:
County/Area: Eddy	Previous Crop: fallow	
Longitude: -104.38	Planting Date: 18-May	
Latitude: 32.75	Harvest Date: 21-Sep	
Elevation: 3360 ft.		
Soil Name: Pima		
Soil Texture: silt loam/scl		
Soil Depth: 60 in.		
	Production Inputs	
	<u>Rate</u> <u>Date</u>	
	Fertilizer:	
	Nitrogen 100 lb/a 16-Jun	
	P ₂ O ₅ 80 lb/a 16-Jun	
	K ₂ O 0 lb/a	
	Zn 1 lb/a 16-Jun	
	Cultivation:	
		17-Jun
	Herbicides:	
	none	
	Insecticides:	
	None	
Test Design:		
Replications: 3		
Plot Length: 22 ft.		
Rows per Plot: 2		
Row Spacing: 40 in.		
Seeding Rate: 80,000 seed/a		
		Average
		<u>Temp.</u> <u>Precip.</u> <u>Irrigation</u>
		°F in. in.
		January 43.9 0.89
		February 50.4 0.41
		March 57.7 0.02
		April 62.8 1.09
		May 67.3 0.30 4.00
		June 79.6 1.83 3.00
		July 81.1 1.49 6.00
		August 77.9 3.15 6.00
		September 73.4 1.92 4.00
		October 61.6 0.43
		November
		December
		Seasonal Precipitation 9.80 in.
		Total Irrigation 23.00 in.
		in.
		Date of Last Spring Frost: 30-Apr
		Date of First Fall Frost: 28-Oct
		Frost Free Period: 181 days

Table 10B. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Brown Midrib	65% Adj Dry Matter			CP	NDF	NDFD 30hr	Ash	TDN	NE _L	Milk/ Ton	Milk/ Acre
					Dry Forage	Green Forage	at Harvest								
					t/a	t/a	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	705F	FS	ME	N	8.0	22.9	35.5	5.6	61.7	57.3	6.1	61.0	0.533	3330	25680
Dyna-Gro Seed	F74FS23BMR	FS	M	Y	7.6	21.7	30.3	6.3	52.9	72.7	6.6	69.7	0.670	3923	29954
Alta Seeds	ADV 6504	SxS	PS	Y	7.1	20.3	26.8	6.4	61.2	70.3	8.3	64.7	0.573	3550	25175
Alta Seeds	AF-7401	FS	L	Y	6.3	18.0	29.5	8.3	62.8	71.0	8.7	65.7	0.570	3554	21305
Dyna-Gro Seed	F76FS77BMR	FS	ML	Y	6.2	17.7	29.0	8.0	63.7	69.7	8.7	64.3	0.553	3494	21222
Alta Seeds	XF7302	FS	M	Y	6.0	17.1	30.0	7.4	59.1	71.0	8.2	66.7	0.607	3671	22724
Alta Seeds	XF-7303	FS	M	Y	5.9	16.9	33.0	8.7	63.2	70.7	9.0	64.7	0.557	3524	18588
Dyna-Gro Seed	Dual Forage SCA	GS	ML	N	5.1	14.6	35.3	6.8	60.1	64.3	7.5	64.7	0.583	3461	15905
Alta Seeds	XF7103	FS	E	Y	3.2	9.1	36.3	5.6	59.0	69.7	7.4	66.3	0.600	3665	13337
Trial Mean					6.1	17.4	31.7	7.0	60.4	68.5	7.8	65.3	0.583	3575	21543
LSD					1.9	5.6	3.7	1.9	NS	3.6	1.9	4.0	0.087	273	9426
LSD P >					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CV					20.7	19.2	7.9	16.0	7.4	3.0	14.0	3.6	8.7	4.4	25.3
F Test					0.0008	0.0001	0.0001	0.0245	0.1879	0.0001	0.0540	0.0290	0.1312	0.0191	0.0424

[†] Sorghum Type: FS=Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid

[§]Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Table 11A. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez

Test Description

Location:		Management Practices:			Growing Conditions:																																																																															
County/Area:	Eddy	Previous Crop:	fallow		<table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>43.9</td><td>0.89</td><td></td></tr> <tr><td>February</td><td>50.4</td><td>0.41</td><td></td></tr> <tr><td>March</td><td>57.7</td><td>0.02</td><td></td></tr> <tr><td>April</td><td>62.8</td><td>1.09</td><td></td></tr> <tr><td>May</td><td>67.3</td><td>0.30</td><td>4.00</td></tr> <tr><td>June</td><td>79.6</td><td>1.83</td><td>2.00</td></tr> <tr><td>July</td><td>81.1</td><td>1.49</td><td>6.00</td></tr> <tr><td>August</td><td>77.9</td><td>3.15</td><td>6.00</td></tr> <tr><td>September</td><td>73.4</td><td>1.92</td><td>4.00</td></tr> <tr><td>October</td><td>61.6</td><td>0.43</td><td></td></tr> <tr><td>November</td><td></td><td></td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> <tr><td colspan="2">Seasonal Precipitation</td><td>9.80 in.</td><td></td></tr> <tr><td colspan="2">Total Irrigation</td><td>22.00 in.</td><td></td></tr> <tr><td colspan="2"></td><td>32</td><td></td></tr> <tr><td colspan="2">Date of Last Spring Frost:</td><td>30-Apr</td><td></td></tr> <tr><td colspan="2">Date of First Fall Frost:</td><td>28-Oct</td><td></td></tr> <tr><td colspan="2">Frost Free Period:</td><td>181 days</td><td></td></tr> </tbody> </table>					Average Temp. °F	Precip. in.	Irrigation in.	January	43.9	0.89		February	50.4	0.41		March	57.7	0.02		April	62.8	1.09		May	67.3	0.30	4.00	June	79.6	1.83	2.00	July	81.1	1.49	6.00	August	77.9	3.15	6.00	September	73.4	1.92	4.00	October	61.6	0.43		November				December				Seasonal Precipitation		9.80 in.		Total Irrigation		22.00 in.				32		Date of Last Spring Frost:		30-Apr		Date of First Fall Frost:		28-Oct		Frost Free Period:		181 days	
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Table 11B. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Type ¹	Harvest 1					Harvest 2					Total	
			Dry Forage	Green Forage	Harvest Moisture	Milk/Ton	Milk/Acre	Dry Forage	Green Forage	Harvest Moisture	Milk/Ton	Milk/Acre	Dry Forage	Milk/Acre
			t/a	t/a	%	lb/t	lb/a	t/a	t/a	%	lb/t	lb/a	t/a	lb/a
Blue River Hybrids	Seahawk	SxS	5.5	23.4	76.2	3711	19527	8.1	29.8	73.0	3672	34977	13.6	54504
Alta Seeds	AS-6401	SxS	3.7	19.5	81.0	3743	13275	8.4	36.3	77.0	3734	29667	12.1	42941
Blue River Hybrids	Blackhawk	SxS	4.8	19.6	75.5	3734	18863	7.3	29.6	75.2	3708	33795	12.1	52658
Blue River Hybrids	Pelican	SxS	4.3	18.7	76.7	3844	15481	7.6	28.4	73.5	3722	29356	11.9	44837
Dyna-Gro Seed	Dannyboy BMR	SxS	3.7	18.0	79.0	3777	15203	7.2	30.1	75.7	3738	31702	10.9	46905
Blue River Hybrids	Nighthawk	SxS	3.7	17.1	78.0	3695	13010	6.5	24.9	74.0	3663	24403	10.2	37412
Alta Seeds	AS-6402	SxS	3.7	15.6	76.5	3707	12001	6.1	22.9	73.5	3608	25263	9.8	37264
Dyna-Gro Seed	Fullgraze BMR	SxS	3.6	16.7	78.0	3700	12400	6.0	24.9	75.5	3677	26438	9.6	38838
Trial Mean			4.0	18.6	77.6	3739	14970	7.1	28.4	74.7	3690	29450	11.3	44420
LSD			1.0	4.6	2.9	81	3407	NS	NS	2.0	83	4290	2.7	5719
CV			16.0	17.0	8.8	1.2	13.0	21.7	20.9	5.3	1.3	8.3	16.4	7.4
F Test			0.0034	0.0678	0.0179	0.0207	0.0014	0.3089	0.1022	0.0043	0.0664	0.0007	0.0731	0.0001

¹FS and SxS signify forage sorghum and sorghum x sudangrass, respectively.

Table 11C. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Type ¹	Harvest 1						Harvest 2					
			NDFD						NDFD					
			CP	NDF	48hr	RFQ	TDN	NE _i	CP	NDF	48hr	RFQ	TDN	NE _i
%	%	%	%	%	Mcal/lb	%	%	%	%	%	Mcal/lb			
BlueRiver	Seahawk	SxS	8.1	59.8	74.0	142	67.7	0.610	8.1	61.5	74.0	138	64.7	0.573
Advanta_Alta	AS-6401	SxS	8.4	61.6	79.3	149	66.3	0.587	9.3	59.6	77.0	147	64.0	0.577
BlueRiver	Blackhawk	SxS	7.3	61.2	72.7	141	68.0	0.607	8.9	61.6	74.7	143	64.0	0.567
BlueRiver	Pelican	SxS	7.6	59.1	76.7	152	68.3	0.620	9.2	61.1	76.0	145	65.0	0.580
DynaGro	Dannyboy BMR	SxS	7.2	60.8	77.7	152	66.3	0.593	8.9	59.9	77.3	146	64.7	0.583
BlueRiver	Nighthawk	SxS	6.5	63.8	76.7	144	66.3	0.573	10.0	61.9	75.7	144	63.0	0.560
Advanta_Alta	AS-6402	SxS	6.1	61.4	75.7	145	67.3	0.597	9.7	60.8	73.3	140	63.3	0.567
DynaGro	Fullgraze BMR	SxS	6.0	61.3	73.3	144	67.0	0.597	9.3	60.9	74.7	143	63.7	0.570
	Trial Mean		7.1	61.1	75.8	146	67.2	0.598	9.2	60.9	75.3	143	64.0	0.572
	LSD		NS	2.7	2.4	NS	1.6	NS	1.1	NS	1.8	7	1.6	NS
	CV		21.7	2.5	1.7	3.9	1.4	2.9	7.0	2.2	1.0	2.8	1.4	2.7
	F Test		0.3089	0.0722	0.0004	0.1733	0.0946	0.1058	0.0896	0.4228	0.0029	0.1535	0.1619	0.6292

¹FS and SxS signify forage sorghum and sorghum x sudangrass, respectively.

Table 12A. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

Location:	Management Practices:	Growing Conditions:																																																		
County/Area: Curry	Previous Crop: fallow	Average																																																		
Longitude: -103.22	Planting Date: 31-May	Temp.	Precip.	Irrigation																																																
Latitude: 34.60	Harvest Date: 13-Oct	°F	in.	in.																																																
Elevation: 4435 ft.		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">January</td> <td style="width: 15%;">36.5</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>February</td> <td>45.8</td> <td></td> <td></td> </tr> <tr> <td>March</td> <td>51.7</td> <td></td> <td></td> </tr> <tr> <td>April</td> <td>55.5</td> <td></td> <td></td> </tr> <tr> <td>May</td> <td>61.4</td> <td></td> <td></td> </tr> <tr> <td>June</td> <td>74.1</td> <td>1.02</td> <td>3.80</td> </tr> <tr> <td>July</td> <td>77.0</td> <td>2.18</td> <td>3.60</td> </tr> <tr> <td>August</td> <td>71.0</td> <td>7.87</td> <td>1.06</td> </tr> <tr> <td>September</td> <td>67.0</td> <td>4.13</td> <td>1.00</td> </tr> <tr> <td>October 1-13</td> <td>56.5</td> <td>2.01</td> <td>0.06</td> </tr> <tr> <td>November</td> <td>50.0</td> <td></td> <td></td> </tr> <tr> <td>December</td> <td>38.0</td> <td></td> <td></td> </tr> </table>			January	36.5			February	45.8			March	51.7			April	55.5			May	61.4			June	74.1	1.02	3.80	July	77.0	2.18	3.60	August	71.0	7.87	1.06	September	67.0	4.13	1.00	October 1-13	56.5	2.01	0.06	November	50.0			December	38.0		
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December	38.0																																																			
Soil Name: Olton		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Seasonal Precipitation:</td> <td style="width: 30%;"></td> <td style="width: 20%;">17.2 in.</td> <td style="width: 20%;"></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>9.5 in.</td> <td></td> </tr> </table>			Seasonal Precipitation:		17.2 in.		Total Irrigation:		9.5 in.																																									
Seasonal Precipitation:		17.2 in.																																																		
Total Irrigation:		9.5 in.																																																		
Soil Texture: clay loam		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Date of Last Spring Frost:</td> <td style="width: 30%;"></td> <td style="width: 20%;">1-May</td> <td style="width: 20%;"></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>10-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>162 days</td> <td></td> </tr> </table>			Date of Last Spring Frost:		1-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		162 days																																					
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Soil Depth: >60 in.																																																				
	Production Inputs																																																			
	Rate	Date																																																		
	Fertilizer:																																																			
	Nitrogen	81 lb/ac	carryover																																																	
	Nitrogen	100 lb/ac	at plant																																																	
	P ₂ O ₅	35 lb/ac	at plant																																																	
	S	16 lb/ac	at plant																																																	
	Zn	1 qt/ac	at plant																																																	
	Herbicides:																																																			
	Atrazine	1.5 pt/ac	at plant																																																	
	Huskie	1 pt/ac	5-Jul																																																	
	Brawl	12 oz/ac	5-Jul																																																	
	Atrazine	8 oz/ac	5-Jul																																																	
	Insecticides:																																																			
	Sivanto	7 oz/ac	30-Aug																																																	
	Sivanto	7 oz/ac	2-Oct																																																	
Test Design:																																																				
Replications: 3																																																				
Plot Length: 20 ft.																																																				
Rows per Plot: 2																																																				
Row Spacing: 30 in.																																																				
Seeding Rate: 75000 seed/a																																																				

Table 12B. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Brown Midrib	Moisture			CP	NDF	NDFD 48hr	Ash	TDN	NE _l Mcal/lb	Milk/Ton lb/t	Milk/Acre lb/a
					Dry Forage t/a	Green Forage t/a	at Harvest %								
NuTech Seed, LLC	FS300	FS	ML	Conv	7.6	19.5	60.9	8.4	52.2	61.6	5.5	62.3	0.638	3085	23527
Dyna-Gro Seed	705F	FS	ME	Conv	7.4	19.2	61.5	8.4	49.5	62.1	6.1	61.5	0.629	3017	22367
Dyna-Gro Seed	F74FS23 BMR	FS	M	BMR	6.8	21.2	68.1	8.4	51.2	68.8	6.5	62.7	0.643	2965	20102
NuTech Seed, LLC	FSB310	FS	ML	BMR	6.6	23.6	71.7	9.7	48.7	68.6	6.9	64.4	0.662	2972	19711
Blue River Hybrids	Seahawk	SxS	ML	BMR	6.5	16.8	61.4	7.6	54.8	60.0	5.5	60.5	0.618	3119	20248
NuTech Seed, LLC	PrimeCut	SxS	PS	Conv	6.4	31.1	79.4	7.9	59.3	62.5	6.7	57.1	0.580	3240	20724
Alta Seeds	AF7401	FS	L	BMR	6.3	23.2	73.0	9.1	47.3	71.3	6.8	66.2	0.681	2973	18532
Alta Seeds	XF7302	FS	M	BMR	6.2	20.9	70.0	9.0	52.9	70.1	7.4	64.6	0.664	3050	18915
Blue River Hybrids	Nighthawk	SxS	L	BMR	5.9	19.4	69.4	9.2	52.9	68.5	7.0	63.4	0.650	2936	17319
Blue River Hybrids	Blackhawk	SxS	ML	BMR	5.7	17.6	67.3	7.9	55.5	64.3	5.7	61.8	0.633	2982	17109
Alta Seeds	XF7303	FS	M	BMR	5.5	16.2	65.9	8.6	51.9	67.8	7.2	64.4	0.661	3067	16771
Dyna-Gro Seed	F76FS77 BMR	FS	ML	BMR	5.3	18.0	70.8	8.2	52.1	71.9	6.9	65.2	0.670	2976	15570
Blue River Hybrids	Pelican	SxS	ML	BMR	5.3	13.9	61.7	8.8	51.1	66.2	6.3	62.6	0.642	2847	15148
Dyna-Gro Seed	Fullgraze BMR	SxS	M	BMR	5.3	22.4	76.4	8.3	53.4	69.8	5.9	60.4	0.617	3069	16162
Dyna-Gro Seed	Dual Forage SCA	GS	ML	Conv	4.0	8.0	49.6	8.2	46.7	64.7	5.6	65.7	0.676	2870	11483
Alta Seeds	XF7103	FS	E	BMR	3.2	7.9	57.8	8.7	42.3	68.5	5.7	66.3	0.682	3044	9657
Trial Mean					5.9	18.7	66.6	8.5	51.4	66.7	6.4	63.1	0.647	3013	14211
LSD					1.5	5.0	4.8	1.0	5.0	4.6	1.3	2.5	0.027	192	3736
LSD P >					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CV					15.7	16.2	4.3	7.2	5.9	4.1	11.9	2.3	2.5	3.8	15.8
F Test					0.0002	<.0001	<.0001	0.0263	<.0001	<.0001	0.0250	<.0001	<.0001	<.0001	0.0735

[†] Sorghum Type: FS = Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, GS = Grain Sorghum

[§]Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Table 13A. New Mexico 2017 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																											
County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.	Previous Crop: fallow Planting Date: 20-Jun Harvest Date: 25-Oct Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>46 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>30 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>P₂O₅</td> <td>20 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>S</td> <td>4.4 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>Zn</td> <td>1 qt/ac</td> <td>18-Apr</td> </tr> <tr> <td>Nitrogen</td> <td>45 lb/ac</td> <td>at plant</td> </tr> <tr> <td>S</td> <td>8 lb/ac</td> <td>at plant</td> </tr> </tbody> </table> Herbicides: Glyphosate 48 oz/ac 30-Apr Detonate 8 oz/ac 30-Apr Sharpen 1.5 oz/ac 19-Jun Atrazine 1.5 pt/ac 19-Jun Glyphosate 48 oz/ac 19-Jun Insecticides: Sivanto 7 oz/ac 30-Aug Dimilin 2 oz/ac at plant		Rate	Date	Fertilizer:			Nitrogen	46 lb/a	carryover	Nitrogen	30 lb/ac	18-Apr	P ₂ O ₅	20 lb/ac	18-Apr	S	4.4 lb/ac	18-Apr	Zn	1 qt/ac	18-Apr	Nitrogen	45 lb/ac	at plant	S	8 lb/ac	at plant	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>36.5</td><td></td><td></td></tr> <tr><td>February</td><td>45.8</td><td></td><td></td></tr> <tr><td>March</td><td>51.7</td><td></td><td></td></tr> <tr><td>April</td><td>55.5</td><td></td><td></td></tr> <tr><td>May</td><td>61.4</td><td></td><td></td></tr> <tr><td>June 20-30</td><td>74.1</td><td>0.74</td><td>1.0</td></tr> <tr><td>July</td><td>77.0</td><td>2.18</td><td></td></tr> <tr><td>August</td><td>71.0</td><td>7.87</td><td></td></tr> <tr><td>September</td><td>67.0</td><td>4.13</td><td></td></tr> <tr><td>October 1-25</td><td>56.5</td><td>2.04</td><td></td></tr> <tr><td>November</td><td>50.0</td><td></td><td></td></tr> <tr><td>December</td><td>38.0</td><td></td><td></td></tr> <tr><td colspan="4"> </td></tr> <tr> <td style="text-align: right;">Seasonal Precipitation:</td> <td></td> <td>17.0 in.</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Irrigation:</td> <td></td> <td>1.0 in.</td> <td></td> </tr> <tr><td colspan="4"> </td></tr> <tr> <td style="text-align: right;">Date of Last Spring Frost:</td> <td></td> <td>1-May</td> <td></td> </tr> <tr> <td style="text-align: right;">Date of First Fall Frost:</td> <td></td> <td>10-Oct</td> <td></td> </tr> <tr> <td style="text-align: right;">Frost Free Period:</td> <td></td> <td>162 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May	61.4			June 20-30	74.1	0.74	1.0	July	77.0	2.18		August	71.0	7.87		September	67.0	4.13		October 1-25	56.5	2.04		November	50.0			December	38.0							Seasonal Precipitation:		17.0 in.		Total Irrigation:		1.0 in.						Date of Last Spring Frost:		1-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		162 days	
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 50000 seed/a																																																																																																													

Table 13B. New Mexico 2017 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Brown Midrib	Moisture			CP	NDFD			TDN	NE _i	Milk/Ton	Milk/Acre
					Dry Forage t/a	Green Forage t/a	at Harvest %		NDF %	48hr %	Ash %				
Dyna-Gro Seed	705F	FS	ME	Conv	5.8	18.6	68.6	8.4	49.5	62.1	6.1	61.5	0.629	2864	16774
NuTech Seed, LLC	FS300	FS	ML	Conv	5.6	17.5	68.1	8.4	52.2	61.6	5.5	62.3	0.638	2916	16344
NuTech Seed, LLC	PrimeCut	SxS	PS	Conv	5.6	23.1	75.8	7.9	59.3	62.5	6.7	57.1	0.580	2549	14180
Dyna-Gro Seed	F74FS23 BMR	FS	M	BMR	5.3	18.2	71.1	8.4	51.2	68.8	6.5	62.7	0.642	3005	16017
Alta Seeds	AF7401	FS	L	BMR	5.2	17.8	70.5	9.1	47.3	71.3	6.8	66.2	0.681	3270	17160
Blue River Hybrids	Blackhawk	SxS	ML	BMR	5.0	15.9	68.7	7.9	55.5	64.4	5.7	61.8	0.633	2906	14489
Blue River Hybrids	Seahawk	SxS	ML	BMR	4.9	12.6	61.0	7.6	54.8	60.0	5.5	60.5	0.618	2775	13617
NuTech Seed, LLC	FSB310	FS	ML	BMR	4.8	16.8	71.4	9.7	48.7	68.6	6.9	64.4	0.662	3126	14924
Alta Seeds	XF7103	FS	E	BMR	4.6	11.0	58.4	8.7	42.3	68.5	5.7	66.3	0.682	3256	14982
Dyna-Gro Seed	F76FS77 BMR	FS	ML	BMR	4.5	16.3	72.1	8.2	52.1	71.9	6.9	65.2	0.670	3207	14568
Alta Seeds	XF7302	FS	M	BMR	4.3	15.7	72.6	9.0	52.9	70.1	7.4	64.6	0.664	3153	13501
Dyna-Gro Seed	Fullgraze BMR	SxS	M	BMR	4.1	15.5	73.1	8.3	53.4	69.8	5.9	60.4	0.617	2848	11786
Blue River Hybrids	Pelican	SxS	ML	BMR	4.1	11.9	64.9	8.8	51.1	66.2	6.3	62.6	0.642	2978	12303
Blue River Hybrids	Nighthawk	SxS	L	BMR	4.0	12.5	68.2	9.2	52.9	68.5	7.0	63.4	0.650	3049	12140
Dyna-Gro Seed	Dual Forage SCA	GS	ML	Conv	3.9	10.2	60.3	8.2	46.7	64.7	5.6	65.7	0.676	3186	12596
Alta Seeds	XF7303	FS	M	BMR	3.8	13.4	71.2	8.6	51.9	67.8	7.2	64.4	0.661	3117	12009
	Trial Mean				4.7	15.4	68.5	8.5	51.4	66.7	6.4	63.1	0.646	3013	14212
	LSD				1.1	3.5	3.1	1.0	5.0	4.6	1.3	2.5	0.027	192	3736
	LSD P >				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	CV				13.8	13.5	2.7	7.2	5.9	4.1	11.9	2.3	2.5	3.8	15.8
	F Test				0.0056	<.0001	<.0001	0.0263	<.0001	<.0001	0.0250	<.0001	<.0001	<.0001	0.0735

[†] Sorghum Type: FS = Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, HPM = Hybrid Pearl Millet, GS = Grain Sorghum

[§]Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Table 14A. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Los Lunas

Investigators: M.A. Marsalis, C. Havik, D. Price, and M. Place

Test Description

Location:		Management Practices:			Growing Conditions:																																																																														
County/Area:	Valencia	Previous Crop:	alfalfa/oats		<table border="1"> <thead> <tr> <th></th> <th>Average Temp.</th> <th>Precip.</th> <th>Irrigation</th> </tr> <tr> <th></th> <th>°F</th> <th>in.</th> <th>in.</th> </tr> </thead> <tbody> <tr><td>January</td><td></td><td></td><td></td></tr> <tr><td>February</td><td></td><td></td><td></td></tr> <tr><td>March</td><td></td><td></td><td></td></tr> <tr><td>April</td><td></td><td></td><td></td></tr> <tr><td>May</td><td>63.3</td><td>0.42</td><td>8.00</td></tr> <tr><td>June</td><td>75.7</td><td>0.11</td><td>5.98</td></tr> <tr><td>July</td><td>78.8</td><td>0.60</td><td>8.49</td></tr> <tr><td>August</td><td>74.4</td><td>3.12</td><td>0.00</td></tr> <tr><td>September</td><td>68.0</td><td>1.71</td><td>5.05</td></tr> <tr><td>October</td><td></td><td></td><td></td></tr> <tr><td>November</td><td></td><td></td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> <tr><td colspan="2">Seasonal Precipitation</td><td colspan="2">5.96 in.</td></tr> <tr><td colspan="2">Total Irrigation</td><td colspan="2">27.52 in.</td></tr> <tr><td colspan="2">Date of Last Spring Frost:</td><td colspan="2">20-May</td></tr> <tr><td colspan="2">Date of First Fall Frost:</td><td colspan="2">10-Oct</td></tr> <tr><td colspan="2">Frost Free Period:</td><td colspan="2">143 days</td></tr> </tbody> </table>				Average Temp.	Precip.	Irrigation		°F	in.	in.	January				February				March				April				May	63.3	0.42	8.00	June	75.7	0.11	5.98	July	78.8	0.60	8.49	August	74.4	3.12	0.00	September	68.0	1.71	5.05	October				November				December				Seasonal Precipitation		5.96 in.		Total Irrigation		27.52 in.		Date of Last Spring Frost:		20-May		Date of First Fall Frost:		10-Oct		Frost Free Period:		143 days	
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Longitude:	-106.45	Planting Date:	23-May																																																																																
Latitude:	34.46	Harvest Date:	25-Sep																																																																																
Elevation:	4840 ft.	Production Inputs																																																																																	
Soil Name:	Gila		Rate	Date																																																																															
Soil Texture:	loam	Fertilizer:																																																																																	
Soil Depth:	60 in.																																																																																		
		Nitrogen	41 lb/a	20-May																																																																															
		Nitrogen	75 lb/a	21-Jun																																																																															
		Nitrogen	75 lb/a	6-Jul																																																																															
		P ₂ O ₅	20 lb/a	20-May																																																																															
		K ₂ O	20 lb/a	20-May																																																																															
		Fe	13 lb/a	20-May																																																																															
		Cultivation:																																																																																	
				21-Jun																																																																															
		Herbicides:																																																																																	
		None																																																																																	
		Insecticides:																																																																																	
		None																																																																																	
Test Design:																																																																																			
Replications:	3																																																																																		
Plot Length:	20 ft.																																																																																		
Rows per Plot:	2																																																																																		
Row Spacing:	30 in.																																																																																		
Seeding Rate:	80,000 seed/a																																																																																		

Table 14B. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Los Lunas

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Brown Midrib	Dry Forage	65% Adj	Moisture	Lodging	Plant Height
						Green Forage	at Harvest		
					t/a	t/a	%	%	in
Chromatin, Inc.	SP 1880	FS	L	Conv	13.4	38.2	70.7	0	164
Chromatin, Inc.	SS 405	FS	L	Conv	11.6	33.2	66.2	7	138
Chromatin, Inc.	SP 1615	FS	L	Conv	10.0	28.5	76.3	0	157
Dyna-Gro Seed	Fullgraze BMR	SxS	M	BMR	9.8	28.0	68.7	17	119
Chromatin, Inc.	SP 2876	FS	ME	BMR	7.7	22.1	72.4	5	110
Chromatin, Inc.	SP 2774	FS	ME	BMR	7.3	20.9	74.2	13	123
Alta Seeds	AF7401	FS	L	BMR	6.4	18.4	74.3	0	71
Browning Seed	Silage Master	FS	ML	Conv	6.3	18.1	74.9	72	124
Chromatin, Inc.	SP 4555	SxS		BMR	5.9	16.9	71.8	68	108
Chromatin, Inc.	SP 2880	FS	M	BMR	5.7	16.2	74.3	92	109
Dyna-Gro Seed	F76FS77 BMR	FS	ML	BMR	5.6	16.0	65.2	0	58
Dyna-Gro Seed	705F	FS	ME	Conv	5.3	15.2	74.4	5	82
Chromatin, Inc.	SPX56216	FS	ML	Conv	5.1	14.6	73.3	17	113
Dyna-Gro Seed	F74FS23 BMR	FS	M	BMR	5.0	14.2	79.9	83	108
Alta Seeds	XF7302	FS	M	BMR	4.9	13.9	74.9	0	63
Dyna-Gro Seed	Dual Forage SCA	GS	ML	Conv	4.7	13.5	76.2	0	67
Chromatin, Inc.	NK 300	FS	ME	Conv	4.6	13.1	58.2	45	72
Chromatin, Inc.	SP 3902 BD	FS-BD	ML	BMR	4.5	13.0	72.3	0	77
Chromatin, Inc.	Milllex 32	HPM	N/A	Conv	4.4	12.4	71.9	2	101
Alta Seeds	XF7303	FS	M	BMR	3.4	9.8	72.8	0	61
Alta Seeds	XF7103	FS	E	BMR	2.2	6.3	71.0	82	63
Trial Mean					6.4	18.2	72.1	24.1	99.4
LSD					1.4	4.1	3.1	27.1	5.6
LSD P >					0.05	0.05	0.05	0.05	0.05
CV					13.5	13.5	2.6	68.1	3.4
F Test					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

[†] Sorghum Type: FS=Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, HPM = Hybrid Pearl Millet

[§]Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Table 14C. New Mexico 2017 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Los Lunas

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Brown Midrib	CP	NDF	NDFD		Ash	TDN	NE _i	Milk/ Ton	Milk/ Acre	Milk/ Irrigation
					%	%	30hr %	ADF %	%	%	Mcal/lb	lb/t	lb/a	lb/ac-inch
Chromatin, Inc.	SP 1880	FS	L	Conv	6.6	61.2	47.4	37.0	5.0	58.2	0.593	2635	35200	1279
Chromatin, Inc.	SS 405	FS	L	Conv	6.1	63.3	42.6	39.3	5.1	57.7	0.587	2564	29874	1086
Chromatin, Inc.	SP 1615	FS	L	Conv	7.6	65.4	48.6	40.8	6.2	59.9	0.612	2771	27669	1005
Dyna-Gro Seed	Fullgraze BMR	SxS	M	BMR	8.0	59.5	56.5	36.6	5.5	62.3	0.638	2965	28717	1044
Chromatin, Inc.	SP 2876	FS	ME	BMR	7.3	58.5	62.4	36.1	5.2	64.9	0.666	3173	24580	893
Chromatin, Inc.	SP 2774	FS	ME	BMR	8.0	56.3	59.1	33.6	5.3	65.0	0.668	3183	23304	847
Alta Seeds	AF7401	FS	L	BMR	8.9	57.5	57.5	36.9	7.5	66.7	0.687	3333	21495	781
Browning Seed	Silage Master	FS	ML	Conv	6.4	66.8	44.4	42.7	5.9	58.6	0.597	2649	17279	628
Chromatin, Inc.	SP 4555	SxS		BMR	7.6	56.0	47.7	34.5	5.9	60.7	0.620	2829	16755	609
Chromatin, Inc.	SP 2880	FS	M	BMR	6.7	66.5	68.0	43.7	6.9	69.3	0.715	3533	20019	727
Dyna-Gro Seed	F76FS77 BMR	FS	ML	BMR	8.1	60.9	43.6	38.9	6.8	63.4	0.650	3032	16880	613
Dyna-Gro Seed	705F	FS	ME	Conv	6.8	63.6	48.3	40.1	5.6	61.5	0.629	2873	15288	556
Chromatin, Inc.	SPX56216	FS	ML	Conv	9.2	56.4	47.7	35.8	7.1	62.9	0.644	3015	15438	561
Dyna-Gro Seed	F74FS23 BMR	FS	M	BMR	7.4	59.8	52.4	38.2	6.9	64.5	0.663	3144	15622	568
Alta Seeds	XF7302	FS	M	BMR	10.3	56.4	55.1	36.9	8.4	67.9	0.700	3422	16664	606
Dyna-Gro Seed	Dual Forage SCA	GS	ML	Conv	8.5	59.2	56.5	38.1	7.7	68.1	0.702	3436	16215	589
Chromatin, Inc.	NK 300	FS	ME	Conv	6.8	58.8	47.1	35.9	5.1	61.9	0.633	2899	13398	487
Chromatin, Inc.	SP 3902 BD	FS-BD	ML	BMR	8.2	51.8	55.2	31.0	5.8	67.4	0.694	3356	15208	553
Chromatin, Inc.	Millex 32	HPM	N/A	Conv	6.8	63.7	38.0	38.0	4.6	55.4	0.561	2393	10408	378
Alta Seeds	XF7303	FS	M	BMR	8.1	62.1	54.0	40.9	8.0	66.2	0.682	3288	11217	407
Alta Seeds	XF7103	FS	E	BMR	7.6	58.9	54.7	37.2	6.9	65.4	0.673	3229	7176	260
Trial Mean					7.7	60.1	51.7	37.7	6.3	63.2	0.648	3034	18971	689
LSD					1.9	NS	7.7	NS	1.5	3.5	0.039	273	4709	171
LSD P >					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CV					14.9	9.3	9.0	11.1	14.2	3.3	3.6	5.4	15.0	15.0
F Test					0.0089	0.1681	<0.0001	0.1412	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

[†] Sorghum Type: FS = Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, HPM = Hybrid Pearl Millet, GS = Grain Sorghum

[§]Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Table 15A. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Single Cut) Performance Test - Agricultural Science Center at Tucumcari

Investigators: L.M. Lauriault, A. Cunningham, J. Box, P.L. Cooksey, S. Jennings, J. Jennings, and A. Williams

Test Description

Location:	Management Practices:	Growing Conditions:																																																													
County/Area: Quay Longitude: -103.68 Latitude: 35.20 Elevation: 4086 ft. Soil Name: Canez Soil Texture: Fine sandy loam Soil Depth: >60 in.	Previous Crop: Fallow Planting Date: 1-Jun Harvest Dates: 25-Oct <hr/> Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">Rate</th> <th style="width: 20%; text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td style="padding-left: 40px;">Nitrogen</td> <td style="text-align: center;">76 lb/a</td> <td style="text-align: center;">7-Sep</td> </tr> </tbody> </table> Pesticides (herbicides and insecticides): Starane Ultra 0.4 pt/a 24-Jun Detonate 8 oz/a 10-Jul		Rate	Date	Fertilizer:			Nitrogen	76 lb/a	7-Sep	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td style="text-align: center;">38</td><td style="text-align: center;">1.02</td><td style="text-align: center;">1.00</td></tr> <tr><td>February</td><td style="text-align: center;">48</td><td style="text-align: center;">0.17</td><td style="text-align: center;">1.25</td></tr> <tr><td>March</td><td style="text-align: center;">56</td><td style="text-align: center;">2.16</td><td style="text-align: center;">4.50</td></tr> <tr><td>April</td><td style="text-align: center;">58</td><td style="text-align: center;">2.73</td><td style="text-align: center;">1.50</td></tr> <tr><td>May</td><td style="text-align: center;">64</td><td style="text-align: center;">1.82</td><td style="text-align: center;">3.00</td></tr> <tr><td>June</td><td style="text-align: center;">77</td><td style="text-align: center;">0.98</td><td style="text-align: center;">3.50</td></tr> <tr><td>July</td><td style="text-align: center;">82</td><td style="text-align: center;">1.58</td><td style="text-align: center;">1.00</td></tr> <tr><td>August</td><td style="text-align: center;">75</td><td style="text-align: center;">6.48</td><td style="text-align: center;">0.00</td></tr> <tr><td>September</td><td style="text-align: center;">70</td><td style="text-align: center;">2.65</td><td style="text-align: center;">1.00</td></tr> <tr><td>October</td><td style="text-align: center;">60</td><td style="text-align: center;">3.62</td><td style="text-align: center;">0.00</td></tr> <tr><td>November</td><td></td><td></td><td style="text-align: center;">0.00</td></tr> <tr><td>December</td><td></td><td></td><td style="text-align: center;">0.00</td></tr> </tbody> </table> Seasonal Precipitation 23.2 in. Total Irrigation 16.8 in. Date of Last Spring Frost: 30-Apr Date of First Fall Frost: 10-Oct Frost Free Period: 163 days		Average Temp. °F	Precip. in.	Irrigation in.	January	38	1.02	1.00	February	48	0.17	1.25	March	56	2.16	4.50	April	58	2.73	1.50	May	64	1.82	3.00	June	77	0.98	3.50	July	82	1.58	1.00	August	75	6.48	0.00	September	70	2.65	1.00	October	60	3.62	0.00	November			0.00	December			0.00
	Rate	Date																																																													
Fertilizer:																																																															
Nitrogen	76 lb/a	7-Sep																																																													
	Average Temp. °F	Precip. in.	Irrigation in.																																																												
January	38	1.02	1.00																																																												
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June	77	0.98	3.50																																																												
July	82	1.58	1.00																																																												
August	75	6.48	0.00																																																												
September	70	2.65	1.00																																																												
October	60	3.62	0.00																																																												
November			0.00																																																												
December			0.00																																																												
Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 80,000 seeds/ac Strip tilled seedbed																																																															

The irrigation system was non-functional from 8/24 until it was repaired on 9/18, which impacted yield.

Table 15B. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Single Cut) Performance Test - Agricultural Science Center at Tucumcari

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Brown Midrib	Moisture			CP	NDF	NDFD		Ash	TDN	NE _l	Milk/Ton	Milk/Acre
				Dry Forage	Green Forage	at Harvest			48hr	Starch					
				t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Chromatin, Inc.	SP1615	FS	Conv	3.4	9.7	71.6	8.7	60.0	68.6	3.5	6.5	60.6	0.533	2272	7713
Dyna-Gro Seed	705F	FS	Conv	2.7	7.8	66.8	6.2	61.2	64.9	6.2	5.6	58.5	0.520	2160	5928
Alta Seeds	XF7302	FS	BMR	2.7	7.7	66.1	7.8	56.8	71.9	4.6	6.4	60.8	0.525	2249	6133
Dyna-Gro Seed	F74FS23 BMR	FS	BMR	2.5	7.1	66.1	6.1	53.9	71.1	8.2	6.2	59.9	0.520	2197	5440
Alta Seeds	AF7401	FS	BMR	2.4	6.8	68.0	7.9	54.5	72.3	5.3	6.5	60.2	0.518	2202	5215
Dyna-Gro Seed	F76FS77 BMR	FS	BMR	2.4	6.9	70.1	8.6	57.5	70.7	4.5	6.5	61.0	0.535	2280	5446
Alta Seeds	XF7303	FS	BMR	1.9	5.3	66.6	8.6	57.0	68.7	4.7	6.7	59.7	0.525	2206	4064
Dyna-Gro Seed	Fullgraze BMR	SxS	BMR	1.6	4.4	69.8	8.3	59.4	69.3	3.6	6.4	60.1	0.525	2219	3414
Alta Seeds	XF7103	FS	BMR	1.1	3.2	69.1	8.5	60.2	70.9	0.7	7.2	60.2	0.520	2201	2445
Dyna-Gro Seed	Dual Forage SCA	GS	Conv	1.0	2.9	64.3	6.8	67.0	64.3	1.4	6.1	58.3	0.520	2141	2164
Trial Mean				2.2	6.2	67.9	7.8	58.7	69.3	4.3	6.4	59.5	0.524	2213	4796
LSD P < 0.05				0.9	2.4	2.4	1.2	2.4	2.0	2.1	0.5	NS	NS	NS	1959
CV				27.2	27.2	2.5	10.6	2.8	2.0	34.4	5.9	2.3	2.6	4.2	28.2
F Test				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0006	0.1304	66.2600	0.5073	0.0001

[†] Sorghum Type: FS=Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, GS = Grain Sorghum
Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional

Appendix A

Companies and Contact Information for Participants in the Agricultural Science Center
Fee-Test Program

New Mexico 2017 Grain Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
AgVenture - Pinnacle P.O. Box 70 Minden, NE Leif Hansen 308-832-1050	EXP157997AM	99
	EXP163027YHB	102
	EXP167047CYXR	104
Dyna-Gro Seed P.O. Box 38, 103 E. Mill Rd Artesia, NM 88210 Shawn Carter 318-282-9804	D58VC37 RIB	118
	D55VP77 RIB	115
	D58QC72 RIB	118
	D57VP51 RIB	117
	D54VC52 RIB	114
	D52VC63 RIB	112
	D49VC39 RIB	109
	D52SS91 RIB	112
	D54DC94 RIB	114
	D45SS65 RIB	105
	D41SS71 RIB	101
	D44VC36 RIB	104
	D39DC43 RIB	99
DuPont Pioneer 6519 72nd St. Lubbock, TX 79424 Grant Groene 620-229-0465	P9608AM	96
	P9697AM	96
	P9998AM	99
	P0157AM	101
	P0365AM	103
	P0589AM	105
	P0657AM	106
	P0805AM	108
	P0801AM	108
P1306 WHR		
Mycogen Seeds / Dow AgroSciences 2076 Parkridge Dr. Hurst, TX 76054 Adam Owens 817-223-9638	MY97R57	97
	MY00J47	100
	MY01D87	101
	MY02J57	102
	MY04Y97	104
	MY05C67	105

New Mexico 2017 Grain Corn Hybrid Performance Test, Con't.

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Rob See Co.	IC4570-3110	95
1015 N 205th St	IC4848-3000GT	98
Elkhorn, NE 68022	RC5112-3011A	101
Bob Leisy	IC5203-3120	102
970-396-7100	IC5296-3120	102
Syngenta	G11B63	111
443 W. County Rd	G13N18-3111	113
Sutherland, NE 69165	G14V04-3000GT	114
John Flynn	G15Q98-3000GT	115
308-386-8725	G18D87-3111	118
	G95D32-3110	95
	G96V99-3120	96
	G97N86-3110	97
	G98L17-3000GT	98
	G01D24-3120	101
	G03C84-3120	103
	G05B91-3010	105
	G06Z97-3102	106
Warner Seeds, Inc.	W4409 VT2PRIB	109
120 S. Lawton Ave.	W4622 VT2PRIB	118
Hereford, TX 79045		
Rusty Smallwood		
806-787-0557		

New Mexico 2017 Forage Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Blue River Hybrids	62G22	110
2326 230th St.	66G25	112
Ames, IA 50014	70A47	114
Scott Ausborn		
800-370-7979		
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B-H Genetics	BH 8590VT2P	115
5933 FM 1157	BH 8732VTTP	117
Ganado, TX 77962	BH 8721VT2P	117
Travis Janak	BH 8907VT2P	118
361-771-2755	BH 8636SS	116
	X17015SS	117
	BH 8988W/GT	118
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Dyna-Gro Seed	D58QC72 RIB	118
P.O. Box 38, 103 E. Mill Rd	D58SS65 RIB	118
Artesia, NM 88210	D55VP77 RIB	115
Shawn Carter	D53VC47 RIB	113
318-282-9804	D54VC52 RIB	114
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Golden Acres Genetics	G7601	117
205 Old Hewitt Rd	G8738	118
Waco, TX 76712	G6832 STX	116
Chris Sheppard	G7848 VT2PRO	117
254-761-9838		
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Masters Choice	MCT6583	115
305 W. Vienna St	MCT6733	117
Anna, IL 62906	MCT6754	117
Kyle Vosburgh		
618-697-7031		

New Mexico 2017 Forage Corn Hybrid Performance Test, Con't.

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Syngenta	G13N18-3111	113
443 W. County Rd	G14V04-3000GT	114
Sutherland, NE 69165	G14H66-3010A	114
John Flynn	G15Q98-3000GT	115
308-386-8725	G18D87-3111	118
	G01D24-3120	101
	G07H81-3010A	107
	G07B39-3111A	109
	G11B63-3010A	111
	G13N18-3111	113

New Mexico 2017 Grain Sorghum Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Maturity Group*
Alta Seeds / Advanta Seeds	ADV G1150	ME
201 John Carpenter Fwy #660	AG 1203	ME
Irving, TX 75062		
Zach Eder		
979-332-5138		
Dyna-Gro Seed	M60GB31	ME
P.O. Box 38, 103 E. Mill Rd	GX16833	M
Artesia, NM 88210	GX17818	ML
Shawn Carter	M73GR55	ML
318-282-9804	M74GB17	ML
	M60GB88	ME
	GX16535	ME
	742C	ME
Sorghum Partners / Chromatin, Inc.	SP 25C10	E
1301 E. 50th St	SP 31A15	E
Lubbock, TX 79404	SP 34A19	ME
Rick Kochenower	SP 33S40	ME
806-746-5118	SP 68M57	M
	CHR0039	E
	CHR0163	E
	SP 73B12	ML
	SP 7715	ML
	CHR0029	ML
	CHR2042	
NuTech Seed, LLC	GS 636	M
2321 N. Loop Dr. Suite 120	GS 663	M
Ames, IA 50010	GS 693	ML
Steve Sick	GS 725	ML
402-661-4700		

*E=early, ME=medium early, ML=medium late, L=late or PS=photoperiod sensitive

**New Mexico 2017 Forage Sorghum/SxS Hybrid Performance Test
(Single Cut)**

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Alta Seeds / Advanta Seeds 201 John Carpenter Fwy #660 Irving, TX 75062 Zach Eder 979-332-5138	AF7401	FS	L	Y
	XF7302	FS	M	Y
	XF7303	FS	M	Y
	XF7103	FS	E	Y
Blue River Hybrids 2326 230th St. Ames, IA 50014 Scott Ausborn 800-370-7979	Blackhawk	SxS	ML	Y
	Nighthawk	SxS	L	Y
	Seahawk	SxS	ML	Y
	Pelicon	SxS	ML	Y
Browning Seed, Inc. 3101 S. I-27 Plainview, TX 79072 Rodney Smith 806-293-5271	Silage Master	FS	ML	N
Dyna-Gro Seed P.O. Box 38, 103 E. Mill Rd Artesia, NM 88210 Shawn Carter 318-282-9804	Fullgraze BMR	SxS	M	Y
	705F	FS	ME	N
	F74FS23 BMR	FS	M	Y
	F76FS77 BMR	FS	ML	Y
	Dual Forage SCA	GS	ML	N
NuTech Seed, LLC 2321 N. Loop Dr. Suite 120 Ames, IA 50010 Steve Sick 402-661-4700	FS300	FS	ML	N
	FSB310	FS	ML	Y
	PrimeCut	SxS	PS	N

*E=early, ME=medium early, ML=medium late, L=late or
PS=photoperiod sensitive

**New Mexico 2017 Forage Sorghum/SxS Hybrid Performance Test (Single Cut),
Con't.**

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Sorghum Partners / Chromatin, Inc.	SPX56216	FS	ML	N
1301 E. 50th St	NK 300	FS	ME	N
Lubbock, TX 79404	SS 405	FS	L	N
Rick Kochenower	SP 1615	FS	L	N
806-746-5118	SP 2774	FS	ME	Y
	SP 2876	FS	ME	Y
	SP 3902 BD	FS	ML	Y
	SP 4555	SxS		Y
	SP 2880	FS	M	Y
	SP 1880	FS	L	N
	Millex 32	HPM	N/A	N

*E=early, ME=medium early, ML=medium late, L=late or PS=photoperiod sensitive

New Mexico 2017 Forage Sorghum/SxS Hybrid Performance Test (Multi Cut)

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Alta Seeds / Advanta Seeds 201 John Carpenter Fwy #660 Irving, TX 75062 Zach Eder 979-332-5138	AS6402	SxS	L	Y
	AS6401	SxS	L	Y
	XS6505	SxS	PS	Y
Blue River Hybrids 2326 230th St. Ames, IA 50014 Scott Ausborn 800-370-7979	Blackhawk	SxS	ML	Y
	Nighthawk	SxS	L	Y
	Seahawk	SxS	ML	Y
	Pelicon	SxS	ML	Y
Dyna-Gro Seed P.O. Box 38, 103 E. Mill Rd Artesia, NM 88210 Shawn Carter 318-282-9804	Danny Boy BMR	SxS	M	Y
	Fullgraze BMR	SxS	M	Y

*E=early, ME=medium early, ML=medium late, L=late or PS=photoperiod sensitive

Appendix B
Glossary of Terms

ADF (Acid Detergent Fiber): ADF consists primarily of cellulose, lignin and acid detergent fiber crude protein. In the past ADF was used as a predictor of indigestibility of forages, however in recent years, research has indicated that ADF is not as strongly correlated with decreased digestibility as once thought.

Ash: Ash is the percentage of residue (minerals) remaining after all organic matter in a sample has been completely incinerated.

CP (Crude Protein): CP is termed 'crude' because it is not a direct measurement of protein. CP is an estimation of total protein based on the nitrogen content of a sample. This fraction consists of non-protein nitrogen as well.

Days to Silk: Days to Silk is the number of days from planting until 50% of plants have begun to show silks.

Dry Forage: Dry Forage is green forage converted to a 100% dry matter basis by deducting the amount of Moisture at Harvest.

Ear Height: Ear Height is the average distance from the ground to the base of the ear.

Green Forage: Green Forage is the harvested yield from the entire plot area, except for the basal part of the stem and the roots, multiplied by a conversion factor to convert the harvested plot yield to a per acre equivalent.

Grain Yield: Grain Yield is the harvested grain yield adjusted to a standard moisture and a standard bushel weight then converted to a per acre equivalent. For grain corn, the standard moisture is 15.5% and the standard bushel weight is 56 pounds.

Lodging: Lodging is a visual estimate of the percentage of plants with stalks broken below the head or leaning at an angle in excess of 45 degrees.

Milk/acre (Milk production per acre): Milk/acre is Milk/ton multiplied by Dry Forage (ton/ac).

Milk/ton (Milk production per ton of dry matter forage): Milk/ton is an index of forage nutritive value. Milk/ton is calculated from the Milk2006 Excel spreadsheet <http://www.uwex.edu/ces/forage/pubs/milk2006.xls>. This index uses forage analyses (CP, NDF, NDFD 48hr, Starch and non-fiber carbohydrate) to estimate energy content, and DMI and NDFD 48hr to predict milk/ton.

Moisture at Harvest: Moisture at Harvest is the percentage of the green forage sample or grain sample weight that is moisture at the time of harvest.

NDF (Neutral Detergent Fiber): NDF is an estimate of the total fiber content of the forage. The NDF or cell wall fraction contains cellulose, hemicellulose and lignin. NDF

gives the best estimate of the total fiber content of the feed and is associated with feed intake.

NDFD 48hr (Neutral Detergent Fiber Digestibility - 48hr): NDFD 48hr is a measure of 48 hr digestibility of the NDF component. The NDFD 48 hr procedure employs a 48-hour *in vitro* fermentation. NDFD 48hr is expressed as a percent of NDF.

NE_L (Net Energy for Lactation): NE_L is the energy value of feeds for lactating cows.

N Removal: N Removal is the total amount of nitrogen, in pounds per acre that is removed from the field at harvest. $N \text{ Removal} = \text{dry forage (t/a)} \times 2000 \times N (\%); \text{ where } N (\%) = CP (\%) / 6.25.$

Plant Height: Plant Height is the average height of the plant measured from the ground to the top of the canopy at harvest.

Population: Population is the number of plants per acre based on a count of the number of plants in a plot converted to a per-acre equivalent.

RFV (Relative Feed Value): RFV is an index that estimates the overall quality of the forage to a ruminant. The equation uses ADF to estimate the digestible dry matter content of the forage. This is then combined with an estimate of dry matter intake, which is an estimate of the amount of forage an animal will eat in a given time period. RFV is the most widely used forage quality index in the United States. It is scaled so that full-bloom alfalfa hay would score 100. Typically, hay must score above 150 RVF to be considered 'dairy quality' hay.

RFQ (Relative Forage Quality): RFQ is similar to RFV in that it is an estimate of overall quality of a forage, but it differs in the way it is calculated. It takes total digestible nutrients (TDN) into account rather than DDM calculated from ADF values. This TDN, combined with dry matter intake (DMI), is derived from *in vitro* estimates of digestible fiber. The RFQ value is considered an improved method over RFV and is becoming the new 'standard' in forage quality testing.

Silk Date: Silk Date is the date when 50% of ears have silks fully emerged.

Starch: Starch is the percentage of starch in the ground forage sample.

TDN (Total Digestible Nutrients): TDN represents the sum of digestible crude protein, digestible carbohydrates, digestible nitrogen-free extract and digestible fat. TDN is highly correlated with the energy content of the feed and is used in calculations of net energy values.

Test Weight: Test Weight is the bushel weight equivalent of a sample of grain.



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