

New Mexico **2020 Corn and Sorghum** Performance Tests



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

**New Mexico
2020
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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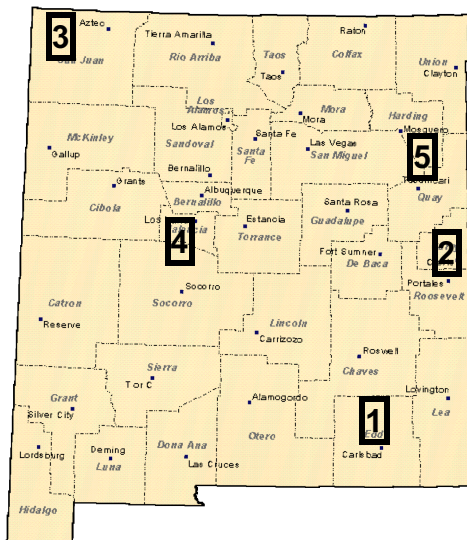
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INTRODUCTION

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, and Tucumcari New Mexico in 2020 (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 Farmington
3. Agricultural Science Center at Clovis
4. Agricultural Science Center at Los Lunas
5. Agricultural Science Center at Tucumcari

Figure 2. Climate zones in New Mexico.

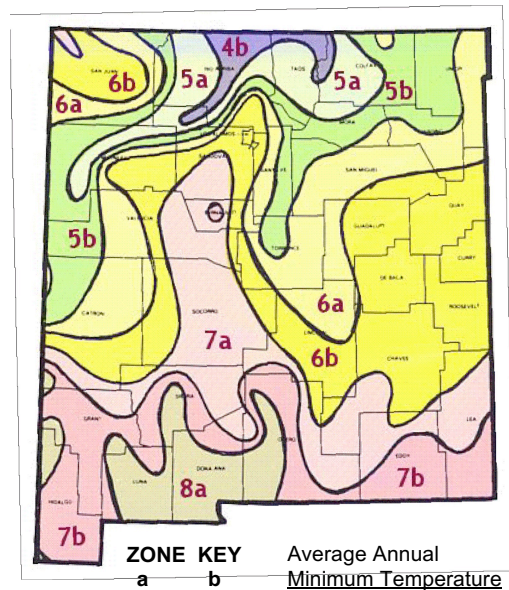


Table 1. Historical average monthly precipitation (inches) and temperatures (°F) for cooperating agricultural science centers.					
	Artesia	Clovis	Farmington	Los Lunas	Tucumcari
	Precipitation (inches)				
January	0.39	0.36	0.56	0.38	0.37
February	0.41	0.39	0.55	0.41	0.46
March	0.41	0.70	0.66	0.47	0.74
April	0.61	0.80	0.62	0.49	1.09
May	1.06	1.98	0.62	0.46	1.96
June	1.39	2.37	0.24	0.56	1.87
July	1.77	2.87	0.86	1.37	2.62
August	1.68	3.07	1.07	1.65	2.69
September	1.82	1.92	1.05	1.16	1.52
October	1.21	1.79	0.86	1.05	1.30
November	0.54	0.52	0.69	0.49	0.65
December	0.50	0.45	0.53	0.52	0.59
Total	11.63	17.11	8.31	8.95	15.91
	Average Temperature (°F)				
January	40.5	37.6	30.4	34.5	38.5
February	45.3	41.3	36.2	40.2	42.3
March	52.0	48.0	44.0	47.3	49.4
April	60.5	56.1	51.2	54.9	57.7
May	69.2	64.6	60.0	63.4	66.3
June	77.7	74.0	70.5	72.7	75.8
July	79.9	76.5	75.7	77.0	79.2
August	78.5	74.8	73.4	74.8	77.4
September	71.7	68.6	66.1	67.5	70.8
October	61.0	58.2	53.8	55.9	59.7
November	48.8	46.4	41.0	43.5	47.6
December	40.8	38.8	31.3	35.1	39.4
Average	60.4	57.0	52.8	55.7	58.8
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 2020 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 2021 Corn and Sorghum Performance Tests will be mailed to seed companies in February 2021. Additional 2021 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 (125-150°F) for determination of moisture content. 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 2020 corn and sorghum variety tests are shown in **Tables 2-17** 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.

Extreme hot and dry conditions, combined with limited/intermittent irrigation during the 2020 growing season at several locations led to large field variability and, subsequently, high CV estimates for some tests.

Corn tests at Tucumcari were planted and emerged; however, due to irrigation supply problems and subsequent heat and drought stress during tasseling, crops were not harvestable in 2020.

Likewise, yields of the irrigated grain sorghum trial were negatively affected at Tucumcari. Yields represent grain collected from a second flush of tillers. Initial grain development was drastically hindered due to irrigation supply problems that coincided with extreme heat and drought during heading/flowering.

Table 2A. New Mexico 2020 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	Previous Crop: fallow	
Longitude: -103.22	Planting Date: 12-May	
Latitude: 34.60	Harvest Date: 6-Oct	
Elevation: 4435 ft.		
Soil Name: Olton		
Soil Texture: clay loam		
Soil Depth: >60 in.		
	Production Inputs	
	<u>Rate</u> <u>Date</u>	
	Fertilizer:	
	Nitrogen 13 lb/ac carryover	
	Nitrogen 40 lb/ac pre plant	
	Zn 3 qt/ac pre plant	
	Phos 47 lb/ac pre plant	
	S 22 lb/ac 13-May	
	Nitrogen 122 lb/ac 13-May	
	Herbicides:	
	Panther 2 oz/ac pre plant	
	LV 6 20 oz/ac pre plant	
	Glyphosate 32 oz/ac pre plant	
	DiFlexx 16 oz/ac 13-May	
	Atrazine 1 pt/ac 13-May	
	Balance Flex 3 oz/ac 13-May	
	Warrant 1.5 qt/ac 13-May	
	DiFlexx 16 oz/ac 15-Jun	
	Warrant 2 qt/ac 15-Jun	
	Insecticides:	
	Onager 16 oz/ac 15-Jun	
	Prevathon 20 oz/ac 31-Jul	
	Oberon 8 oz/ac 31-Jul	
Test Design:		
Replications: 3		
Plot Length: 20 ft.		
Rows per Plot: 2		
Row Spacing: 30 in.		
Seeding Rate: 27,000 seed/a		
		Average
		Temp. Precip. Irrigation
		°F in. in.
		January 38.2
		February 38.0
		March 51.0
		April 53.9
		May 12-31 67.2 0.05 2.50
		June 75.8 1.16 2.20
		July 79.0 3.90 6.25
		August 79.0 0.55 7.90
		September 65.5 0.04 2.20
		October 1-6 66.0 0.00 0.20
		November
		December
		Seasonal Precipitation: 5.7 in.
		Total Irrigation: 21.3 in.
		Date of Last Spring Frost: 18-Apr
		Date of First Fall Frost: 17-Oct
		Frost Free Period: 186 days

Table 2B. New Mexico 2020 Grain Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Moisture		Test Weight	Plant Height	Ear Height	Silk Date
		Grain Yield	at Harvest				
		bu/a	%	lb/bu	in	in	
Dyna-Gro Seed	D54VC34	273.7	14.8	60.7	93.3	45.7	25-Jul
Dyna-Gro Seed	D58VC65	269.4	16.4	61.1	92.0	44.9	20-Jul
Dyna-Gro Seed	D55VC80	267.8	16.1	59.9	97.0	48.9	24-Jul
LG Seeds	LG66C44VT2PRO	265.4	13.7	61.2	88.3	42.0	20-Jul
Dyna-Gro Seed	D57VC17	260.3	15.3	61.0	92.0	45.7	26-Jul
Dyna-Gro Seed	D52DC82	251.1	14.3	59.8	95.0	48.0	26-Jul
Dyna-Gro Seed	D54VC14	250.2	14.5	61.8	87.0	41.6	26-Jul
LG Seeds	LG66C32VT2PRO	248.9	16.3	61.6	85.3	42.9	27-Jul
LG Seeds	LG67C45STX	246.2	14.8	61.4	93.0	47.6	26-Jul
Dyna-Gro Seed	D54SS74	241.0	14.1	61.3	88.3	40.7	19-Jul
Dyna-Gro Seed	D58VC90	240.9	15.8	60.7	90.7	45.9	20-Jul
Dyna-Gro Seed	D53VC33	239.9	14.1	60.2	95.0	44.4	24-Jul
	Trial Mean	254.6	15.0	60.9	91.4	44.9	23-Jul
	LSD (P > 0.05)	NS	NS	NS	4.5	NS	NS
	CV	5.8	8.4	1.7	2.9	4.9	0.8
	F Test	0.3795	0.2008	0.6862	0.0129	0.2165	0.2010

Table 3A. New Mexico 2020 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Koffi Djaman (PI), Samuel Allen, Dallen Begay, Margaret West, F. Jason Thomas, Jonah Joe

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																																										
County/Area: San Juan Longitude: -108.306 Latitude: 36.6812 Elevation: 5,640 ft. Soil Name: Wall Soil Texture: sandy loam Soil Depth: > 75 in.	Previous Crop: 2019 white and blue Indian corn, 2018 winter wheat/fallow, 2017 winter wheat Planting Date: 13-May Harvest Date: 10-Dec 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>Dry Nitrogen</td> <td style="text-align: center;">21.0 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Phosphorus</td> <td style="text-align: center;">100 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Potassium</td> <td style="text-align: center;">90 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Zinc</td> <td style="text-align: center;">14 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">18-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">25-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">2-Jul</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">16-Jul</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">23-Jul</td> </tr> <tr> <td>Total Nitrogen</td> <td style="text-align: center;">288.0 lb/a</td> <td></td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Cinch ATZ</td> <td style="text-align: center;">41 oz/a</td> <td style="text-align: center;">22-May</td> </tr> <tr> <td>MSO Super Spread</td> <td style="text-align: center;">1 qt/a</td> <td style="text-align: center;">22-May</td> </tr> <tr> <td>Status</td> <td style="text-align: center;">10 oz/a</td> <td style="text-align: center;">22-May</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Dry Nitrogen	21.0 lb/a	6-May	Phosphorus	100 lb/a	6-May	Potassium	90 lb/a	6-May	Zinc	14 lb/a	6-May	Nitrogen	53.4 lb/a	18-Jun	Nitrogen	53.4 lb/a	25-Jun	Nitrogen	53.4 lb/a	2-Jul	Nitrogen	53.4 lb/a	16-Jul	Nitrogen	53.4 lb/a	23-Jul	Total Nitrogen	288.0 lb/a		Herbicides:			Cinch ATZ	41 oz/a	22-May	MSO Super Spread	1 qt/a	22-May	Status	10 oz/a	22-May	<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;">Approx. Irrigation 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 style="text-align: center;">61.9</td><td style="text-align: center;">0.03</td><td style="text-align: center;">2.50</td></tr> <tr><td>June</td><td style="text-align: center;">70.0</td><td style="text-align: center;">0.15</td><td style="text-align: center;">5.00</td></tr> <tr><td>July</td><td style="text-align: center;">74.1</td><td style="text-align: center;">1.24</td><td style="text-align: center;">15.00</td></tr> <tr><td>August</td><td style="text-align: center;">75.8</td><td style="text-align: center;">0.02</td><td style="text-align: center;">10.00</td></tr> <tr><td>September</td><td style="text-align: center;">65.0</td><td style="text-align: center;">0.46</td><td style="text-align: center;">7.50</td></tr> <tr><td>October</td><td style="text-align: center;">53.6</td><td style="text-align: center;">0.29</td><td style="text-align: center;">3.00</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>Seasonal Precipitation:</td> <td></td> <td style="text-align: center;">2.2 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td style="text-align: center;">43.0 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td colspan="3" style="text-align: right;">18-Apr</td> </tr> <tr> <td>Date of First Fall Frost:</td> <td colspan="3" style="text-align: right;">29-Sep</td> </tr> <tr> <td>Frost Free Period:</td> <td colspan="3" style="text-align: right;">164 days</td> </tr> </tbody> </table>				Average Temp. °F	Precip. in.	Approx. Irrigation in.	January				February				March				April				May	61.9	0.03	2.50	June	70.0	0.15	5.00	July	74.1	1.24	15.00	August	75.8	0.02	10.00	September	65.0	0.46	7.50	October	53.6	0.29	3.00	November				December				Seasonal Precipitation:		2.2 in.		Total Irrigation:		43.0 in.		Date of Last Spring Frost:	18-Apr			Date of First Fall Frost:	29-Sep			Frost Free Period:	164 days		
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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																																																																																																																												

Table 3B. New Mexico 2020 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

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	
Dyna-Gro Seed	D50VC78	255.2	13.6	58.5	95	39	29-Jul
Dyna-Gro Seed	D44SS54	242.3	12.7	58.6	97	39	29-Jul
Dyna-Gro Seed	D48QV22	218.2	13.9	58.0	95	37	29-Jul
Dyna-Gro Seed	D40VC41	208.2	12.9	59.1	100	42	29-Jul
Dyna-Gro Seed	D45TC55	207.5	12.8	59.4	99	41	29-Jul
Dyna-Gro Seed	D48VC76	185.8	13.4	58.3	96	38	29-Jul
Dyna-Gro Seed	D51VC41	165.7	13.9	58.2	94	36	29-Jul
	Trial Mean	211.8	13.3	58.6	96	39	29-Jul
	LSD (P < 0.05)	51.9	NS	0.8	NS	NS	
	CV	16.5	4.8	1.0	6.2	7.9	
	F Test	0.0289	0.0562	0.0296	0.7724	0.1374	

Table 4A. New Mexico 2020 Full Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Koffi Djaman (PI), Samuel Allen, Dallen Begay, Margaret West, F. Jason Thomas, Jonah Joe

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																																										
County/Area: San Juan Longitude: -108.306 Latitude: 36.6812 Elevation: 5,640 ft. Soil Name: Wall Soil Texture: sandy loam Soil Depth: > 75 in.	Previous Crop: 2019 white and blue Indian corn, 2018 winter wheat/fallow, 2017 winter wheat Planting Date: 13-May Harvest Date: 10-Dec 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>Dry Nitrogen</td> <td style="text-align: center;">21.0 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Phosphorus</td> <td style="text-align: center;">100 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Potassium</td> <td style="text-align: center;">90 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Zinc</td> <td style="text-align: center;">14 lb/a</td> <td style="text-align: center;">6-May</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">18-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">25-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">2-Jul</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">16-Jul</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">53.4 lb/a</td> <td style="text-align: center;">23-Jul</td> </tr> <tr> <td>Total Nitrogen</td> <td style="text-align: center;">288.0 lb/a</td> <td></td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Cinch ATZ</td> <td style="text-align: center;">41 oz/a</td> <td style="text-align: center;">22-May</td> </tr> <tr> <td>MSO Super Spread</td> <td style="text-align: center;">1 qt/a</td> <td style="text-align: center;">22-May</td> </tr> <tr> <td>Status</td> <td style="text-align: center;">10 oz/a</td> <td style="text-align: center;">22-May</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Dry Nitrogen	21.0 lb/a	6-May	Phosphorus	100 lb/a	6-May	Potassium	90 lb/a	6-May	Zinc	14 lb/a	6-May	Nitrogen	53.4 lb/a	18-Jun	Nitrogen	53.4 lb/a	25-Jun	Nitrogen	53.4 lb/a	2-Jul	Nitrogen	53.4 lb/a	16-Jul	Nitrogen	53.4 lb/a	23-Jul	Total Nitrogen	288.0 lb/a		Herbicides:			Cinch ATZ	41 oz/a	22-May	MSO Super Spread	1 qt/a	22-May	Status	10 oz/a	22-May	<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;">Approx. Irrigation 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 style="text-align: center;">61.9</td><td style="text-align: center;">0.03</td><td style="text-align: center;">2.50</td></tr> <tr><td>June</td><td style="text-align: center;">70.0</td><td style="text-align: center;">0.15</td><td style="text-align: center;">5.00</td></tr> <tr><td>July</td><td style="text-align: center;">74.1</td><td style="text-align: center;">1.24</td><td style="text-align: center;">15.00</td></tr> <tr><td>August</td><td style="text-align: center;">75.8</td><td style="text-align: center;">0.02</td><td style="text-align: center;">10.00</td></tr> <tr><td>September</td><td style="text-align: center;">65.0</td><td style="text-align: center;">0.46</td><td style="text-align: center;">7.50</td></tr> <tr><td>October</td><td style="text-align: center;">53.6</td><td style="text-align: center;">0.29</td><td style="text-align: center;">3.00</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>Seasonal Precipitation:</td> <td></td> <td style="text-align: center;">2.2 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td style="text-align: center;">43.0 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td colspan="3" style="text-align: right;">18-Apr</td> </tr> <tr> <td>Date of First Fall Frost:</td> <td colspan="3" style="text-align: right;">29-Sep</td> </tr> <tr> <td>Frost Free Period:</td> <td colspan="3" style="text-align: right;">164 days</td> </tr> </tbody> </table>				Average Temp. °F	Precip. in.	Approx. Irrigation in.	January				February				March				April				May	61.9	0.03	2.50	June	70.0	0.15	5.00	July	74.1	1.24	15.00	August	75.8	0.02	10.00	September	65.0	0.46	7.50	October	53.6	0.29	3.00	November				December				Seasonal Precipitation:		2.2 in.		Total Irrigation:		43.0 in.		Date of Last Spring Frost:	18-Apr			Date of First Fall Frost:	29-Sep			Frost Free Period:	164 days		
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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																																																																																																																												

Table 4B. New Mexico 2020 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
			at Harvest %				
Dyna-Gro Seed	D54VC34	281.0	14.7	57.7	100	41	29-Jul
Dyna-Gro Seed	D57TC29	243.6	15.1	54.9	100	40	29-Jul
Dyna-Gro Seed	D52DC82	225.7	15.1	55.2	99	39	29-Jul
Dyna-Gro Seed	D54VC14	222.5	14.9	57.1	99	40	29-Jul
Dyna-Gro Seed	D51VC41	212.6	13.9	56.0	101	42	29-Jul
Dyna-Gro Seed	D58VC90	208.1	15.3	56.6	99	40	29-Jul
	Trial Mean	232.2	14.8	56.2	99	40	29-Jul
	LSD P < 0.05	NS	NS	NS	NS	NS	
	CV	23.7	7.5	2.9	5.2	7.9	
	F Test	0.4743	0.5581	0.1813	0.9909	0.8288	

Table 5A. New Mexico 2020 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, M. Lopez, and J. Hill

Test Description

Location:	Management Practices:	Growing Conditions:
County/Area: Eddy	Previous Crop: alfalfa	
Longitude: -104.22	Planting Date: 13-May	
Latitude: 32.45	Harvest Date: 25-Aug	
Elevation: 3356 ft.		
Soil Name: Reagan		
Soil Texture: loam		
Soil Depth: 32 in.		
	Production Inputs	
	Rate Date	
	Fertilizer:	
	Nitrogen 13.2 lb/a 29-May	
	Nitrogen 75.9 lb/a 29-May	
	Nitrogen 75.9 lb/a 9-Jul	
	P ₂ O ₅ 62.4 lb/a 29-May	
	Herbicides:	
	Rifle 1 pt/ac 5-Jun	
	Insecticides:	
	None	
Test Design:		
Replications: 4		
Plot Length: 20 ft.		
Rows per Plot: 2		
Row Spacing: 40 in.		
Seeding Rate: 32,000 seed/a		
		Average
		Temp. Precip. Irrigation
		°F in. in.
		January 42.6 0.39
		February 42.9 0.56
		March 55.7 2.95
		April 61.1 0.04
		May 72.8 0.00 14.17
		June 80.0 0.28 13.51
		July 85.1 0.60 22.59
		August 82.9 1.24
		September 70.2 0.02
		October
		November
		December
		Seasonal Precipitation 2.16 in.
		Total Irrigation 50.27 in.
		Date of Last Spring Frost: 13-Apr
		Date of First Fall Frost: 27-Oct
		Frost Free Period: 197 days

Table 5B. New Mexico 2020 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Moisture			NDFD		Ash	Starch	TDN	NE _l	Milk/Ton	Milk/Acre
		Dry Forage	Green Forage	at Harvest	CP	48hr						
		t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	D58QC72	9.9	25.4	61.4	8.3	63.0	6.1	26.4	68.6	0.658	3145	31158
Integra / Wilbur-Ellis	6621 DGVT2P	9.6	25.5	62.4	8.0	63.3	5.4	22.7	68.1	0.651	2998	28660
Integra / Wilbur-Ellis	6720 SS	9.3	25.8	63.4	7.7	63.0	5.6	26.6	69.9	0.675	3150	29415
Integra / Wilbur-Ellis	6709 VT2P	9.2	23.1	61.1	7.9	63.7	5.6	27.7	70.0	0.675	3150	28859
LG Seeds	LG68C59-3330	9.2	23.0	60.7	7.4	64.0	6.0	25.7	69.6	0.668	3112	28488
LG Seeds	LG66C28-3110	9.0	22.1	58.9	7.7	62.7	6.0	24.6	67.1	0.639	2916	26361
Integra / Wilbur-Ellis	6880 VT2P	9.0	23.9	62.3	7.9	65.0	5.6	24.5	69.5	0.665	3096	27879
Integra / Wilbur-Ellis	9678 VT2P	8.7	24.0	63.7	7.5	65.0	5.7	25.4	69.2	0.661	3133	27352
Dyna-Gro Seed	D58VC65	8.6	22.0	61.0	7.8	63.0	5.4	26.6	68.9	0.661	3061	26403
Dyna-Gro Seed	D52DC82	8.5	22.6	62.3	8.2	65.0	5.7	29.3	70.8	0.683	3213	27411
Dekalb/Bayer	DKC69-16RIB	8.5	22.5	62.2	8.0	62.0	5.4	26.4	69.9	0.677	3156	26956
Dekalb/Bayer	DKC64-44RIB	8.4	21.8	60.6	8.0	65.7	5.5	25.2	68.8	0.655	3035	25527
Dyna-Gro Seed	D55VC80	8.4	22.3	62.3	7.7	65.0	5.3	27.6	69.7	0.667	3121	26237
Dekalb/Bayer	DKC70-64RIB	8.4	22.2	62.3	7.2	63.3	5.7	22.3	66.7	0.633	2883	24199
Dyna-Gro Seed	D57TC29	8.4	25.1	66.5	7.3	64.3	4.7	32.4	72.7	0.708	3367	28108
Dyna-Gro Seed	D58VC90	8.3	21.6	61.5	7.4	65.3	5.6	26.9	69.4	0.663	3081	25692
Integra / Wilbur-Ellis	6588 VT2P	8.1	21.8	62.7	7.8	64.7	5.5	27.4	70.1	0.673	3149	25510
Dyna-Gro Seed	D54VC14	7.6	18.8	59.3	7.4	63.0	5.1	31.4	69.9	0.675	3150	23994
Dyna-Gro Seed	D53VC33	7.3	18.1	58.6	7.9	66.0	5.7	25.5	66.8	0.644	2859	20976
Trial Mean		8.7	22.7	61.7	7.7	64.1	5.6	26.5	69.3	0.665	3093	26799
LSD (P < 0.05)		0.8	2.4	3.1	NS	2.1	NS	3.2	2.3	0.027	160	2656
CV		5.2	6.3	3.0	5.7	2.0	7.8	7.2	2.0	2.5	3.1	6.0
F Test		<0.0001	<0.0001	0.0045	0.1490	0.0083	0.1259	<0.0001	0.0011	0.0014	<0.0001	<0.0001

Table 6A. New Mexico 2020 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	Previous Crop: fallow	
Longitude: -103.22	Planting Date: 12-May	
Latitude: 34.60	Harvest Date: 4-Sep	
Elevation: 4435 ft.		
Soil Name: Olton		
Soil Texture: clay loam		
Soil Depth: >60 in.		
	Production Inputs	
	Rate Date	
	Fertilizer:	
	Nitrogen 13 lb/ac carryover	
	Nitrogen 40 lb/ac pre plant	
	Zn 3 qt/ac pre plant	
	Phos 47 lb/ac pre plant	
	S 22 lb/ac 13-May	
	Nitrogen 122 lb/ac 13-May	
	Herbicides:	
	Panther 2 oz/ac pt/ac pre plant	
	LV 6 20 oz/ac pre plant	
	Glyphosate 32 oz/ac pre plant	
	DiFlexx 16 oz/ac 13-May	
	Atrazine 1 pt/ac 13-May	
	Balance Flex 3 oz/ac 13-May	
	Warrant 1.5 qt/ac 13-May	
	DiFlexx 16 oz/ac 15-Jun	
	Warrant 2 qt/ac 15-Jun	
	Insecticides:	
	Onager 16 oz/ac 15-Jun	
	Prevathon 20 oz/ac 31-Jul	
	Oberon 8 oz/ac 31-Jul	
Test Design:		
Replications: 3		
Plot Length: 20 ft.		
Rows per Plot: 2		
Row Spacing: 30 in.		
Seeding Rate: 27,000 seed/a		
		Average
		Temp. Precip. Irrigation
		°F in. in.
		January 38.2
		February 38.0
		March 51.0
		April 53.9
		May12-31 67.2 0.05 2.50
		June 75.8 1.16 2.20
		July 79.0 3.90 6.25
		August 79.0 0.55 7.90
		September 1-4 65.5 0.04
		October 56.0
		November
		December
		Seasonal Precipitation: 5.7 in.
		Total Irrigation: 18.9 in.
		Date of Last Spring Frost: 18-Apr
		Date of First Fall Frost: 17-Oct
		Frost Free Period: 186 days

Table 6B. New Mexico 2020 Forage Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Moisture			CP	NDFD			Ash	TDN	NE ₁	Milk/Ton	Milk/Acre
		Dry Forage	Green Forage	at Harvest		NDF	48hr	Starch					
		t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
BH Genetics	BH 8690VIP3111	9.8	26.3	62.9	9.1	40.5	66.2	32.2	3.4	70.6	0.730	3548	34625
Dekalb/Bayer	DKC70-64RIB	9.3	26.9	65.3	9.4	44.9	65.2	24.1	4.1	68.5	0.706	3388	31680
LG Seeds	LG68C59-3330	9.2	27.0	65.8	9.7	40.3	66.2	29.6	3.9	70.4	0.727	3532	32502
BH Genetics	BH 8400PCE	9.2	25.7	64.2	8.7	42.0	67.1	30.1	4.6	69.4	0.717	3471	31902
Dyna-Gro Seed	D57TC29	9.1	25.8	64.6	9.2	40.2	65.7	32.0	3.1	70.7	0.731	3550	32469
Dyna-Gro Seed	D52DC82	9.1	24.5	62.8	8.4	36.8	67.1	37.9	3.0	71.5	0.740	3624	33025
Dyna-Gro Seed	D55VC80	9.1	23.5	61.2	9.3	42.2	66.4	29.6	3.7	70.1	0.724	3514	31946
Dyna-Gro Seed	D58VC90	9.1	25.6	64.6	9.2	41.0	64.6	32.0	2.9	70.4	0.728	3522	31983
Integra / Wilbur-Ellis	6720 SS	9.0	24.2	62.7	9.8	41.0	65.7	31.1	3.4	70.4	0.727	3529	31862
BH Genetics	BH 8712VIP3110	8.8	24.6	64.0	9.2	41.2	65.6	30.8	3.6	70.0	0.723	3501	30927
BH Genetics	BH 8780VT2P	8.8	23.1	61.7	9.6	40.8	65.4	29.9	3.5	70.4	0.727	3526	31142
Integra / Wilbur-Ellis	6588 VT2P	8.8	24.6	64.2	9.3	40.8	65.8	30.0	3.4	70.4	0.727	3530	31045
BH Genetics	BH 8907VT2P	8.7	25.6	66.0	8.8	43.6	64.8	28.2	3.5	69.3	0.716	3447	29938
BH Genetics	BH 8732VT2P	8.7	23.4	62.8	9.2	41.2	66.6	30.2	3.3	70.8	0.732	3565	30929
Integra / Wilbur-Ellis	9678 VT2P	8.6	24.0	64.0	10.2	39.7	64.6	31.4	3.5	70.3	0.726	3513	30414
Integra / Wilbur-Ellis	6709 VT2P	8.6	24.7	65.0	9.3	43.9	65.2	25.6	3.9	68.9	0.710	3416	29479
Dekalb/Bayer	DKC69-16RIB	8.6	23.6	63.7	9.6	42.3	65.7	28.2	3.9	70.1	0.724	3510	30182
LG Seeds	LG66C28-3110	8.5	22.7	62.4	9.8	40.3	63.5	31.4	3.5	69.6	0.719	3456	29407
Dyna-Gro Seed	D54VC14	8.5	24.0	64.8	9.7	41.1	64.3	29.8	3.8	69.8	0.721	3477	29467
Integra / Wilbur-Ellis	6880 VT2P	8.4	23.9	64.7	9.5	40.2	64.1	32.1	2.9	70.3	0.726	3508	29525
Master's Choice, Inc.	MCT6552	8.4	23.6	64.4	9.4	42.0	65.9	29.4	4.1	69.6	0.718	3472	29150
Integra / Wilbur-Ellis	6621 DGVT2P	8.4	23.7	64.7	9.5	41.3	64.3	29.0	4.2	68.9	0.711	3410	28491
BH Genetics	BH 8704VIP3110	8.3	22.9	63.6	9.7	42.2	66.6	26.7	4.4	69.9	0.721	3499	29131
Dyna-Gro Seed	D58QC72	8.1	24.0	66.2	9.3	43.4	65.0	27.4	3.5	69.6	0.719	3469	28114
BH Genetics	BH 8555DG2P	8.0	22.2	63.9	9.3	40.3	65.0	30.4	4.0	69.7	0.719	3472	27806
Dekalb/Bayer	DKC64-44RIB	7.9	20.8	61.9	9.5	40.9	65.4	30.2	3.6	70.3	0.727	3524	27798
Dyna-Gro Seed	D58VC65	7.8	21.7	64.0	9.7	39.2	64.6	32.4	3.3	70.3	0.727	3516	27493
Dyna-Gro Seed	D53VC33	7.7	18.9	58.9	9.0	39.4	67.2	33.6	3.2	71.4	0.739	3618	28023
Master's Choice, Inc.	MCT6703	7.4	20.9	64.7	8.8	41.9	66.0	30.1	4.2	69.6	0.719	3478	25689
	Trial Mean	8.6	24.0	63.9	9.4	40.9	65.5	30.5	3.7	70.0	0.724	3503	30194
	LSD (P < 0.05)	0.8	1.9	0.3	NS	3.4	1.2	NS	NS	1.4	0.016	108	3323
	CV	5.8	5.0	2.8	3.8	5.1	1.2	8.3	14.8	1.2	1.3	1.9	6.7
	F Test	0.0102	0.0002	<.0001	0.4839	0.0304	<.0001	0.2321	0.3226	0.0065	0.0064	0.0024	0.0162

Table 7A. New Mexico 2020 Forage Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Koffi Djaman (PI), Samuel Allen, Dallen Begay, Margaret West, F. Jason Thomas, Jonah Joe

Test Description

<p>Location: County/Area: San Juan Longitude: -108.306 Latitude: 36.6812 Elevation: 5,640 ft. Soil Name: Wall Soil Texture: sandy loam Soil Depth: > 75 in.</p> <p>Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 4 Row Spacing: 30 in.</p> <p>Seeding Rate: 36,590 seeds/a Harvest Area: 2 row 20 feet long</p>	<p>Management Practices: Previous Crop: 2019 white and blue Indian corn, 2018 winter wheat/fallow, 2017 winter wheat Planting Date: 13-May Harvest Date: 10-Dec</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>Dry Nitrogen</td> <td>21.0 lb/a</td> <td>6-May</td> </tr> <tr> <td>Phosphorus</td> <td>100 lb/a</td> <td>6-May</td> </tr> <tr> <td>Potassium</td> <td>90 lb/a</td> <td>6-May</td> </tr> <tr> <td>Zinc</td> <td>14 lb/a</td> <td>6-May</td> </tr> <tr> <td>Nitrogen</td> <td>53.4 lb/a</td> <td>18-Jun</td> </tr> <tr> <td>Nitrogen</td> <td>53.4 lb/a</td> <td>25-Jun</td> </tr> <tr> <td>Nitrogen</td> <td>53.4 lb/a</td> <td>2-Jul</td> </tr> <tr> <td>Nitrogen</td> <td>53.4 lb/a</td> <td>16-Jul</td> </tr> <tr> <td>Nitrogen</td> <td>53.4 lb/a</td> <td>23-Jul</td> </tr> <tr> <td>Total Nitrogen</td> <td>288.0 lb/a</td> <td></td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Cinch ATZ</td> <td>41 oz/a</td> <td>22-May</td> </tr> <tr> <td>MSO Super Spread</td> <td>1 qt/a</td> <td>22-May</td> </tr> <tr> <td>Status</td> <td>10 oz/a</td> <td>22-May</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Dry Nitrogen	21.0 lb/a	6-May	Phosphorus	100 lb/a	6-May	Potassium	90 lb/a	6-May	Zinc	14 lb/a	6-May	Nitrogen	53.4 lb/a	18-Jun	Nitrogen	53.4 lb/a	25-Jun	Nitrogen	53.4 lb/a	2-Jul	Nitrogen	53.4 lb/a	16-Jul	Nitrogen	53.4 lb/a	23-Jul	Total Nitrogen	288.0 lb/a		Herbicides:			Cinch ATZ	41 oz/a	22-May	MSO Super Spread	1 qt/a	22-May	Status	10 oz/a	22-May	<p>Growing Conditions:</p> <table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Approx. Irrigation 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>61.9</td><td>0.03</td><td>2.50</td></tr> <tr><td>June</td><td>70.0</td><td>0.15</td><td>5.00</td></tr> <tr><td>July</td><td>74.1</td><td>1.24</td><td>15.00</td></tr> <tr><td>August</td><td>75.8</td><td>0.02</td><td>10.00</td></tr> <tr><td>September</td><td>65.0</td><td>0.46</td><td>7.50</td></tr> <tr><td>October</td><td>53.6</td><td>0.29</td><td>3.00</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>2.2 in.</td><td></td></tr> <tr><td colspan="2">Total Irrigation:</td><td>43.0 in.</td><td></td></tr> <tr><td colspan="2">Date of Last Spring Frost:</td><td>18-Apr</td><td></td></tr> <tr><td colspan="2">Date of First Fall Frost:</td><td>29-Sep</td><td></td></tr> <tr><td colspan="2">Frost Free Period:</td><td>164 days</td><td></td></tr> </tbody> </table>		Average Temp. °F	Precip. in.	Approx. Irrigation in.	January				February				March				April				May	61.9	0.03	2.50	June	70.0	0.15	5.00	July	74.1	1.24	15.00	August	75.8	0.02	10.00	September	65.0	0.46	7.50	October	53.6	0.29	3.00	November				December				Seasonal Precipitation:		2.2 in.		Total Irrigation:		43.0 in.		Date of Last Spring Frost:		18-Apr		Date of First Fall Frost:		29-Sep		Frost Free Period:		164 days	
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Table 7B. New Mexico 2020 Forage Corn Performance Test - Agricultural Science Center at Farmington

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage t/a	Green Forage t/a	Moisture	CP %	NDF %	NDFD 48hr %	Starch %	Ash %	TDN %	Milk/Ton lb/t	Milk/Acre lb/a
				at Harvest %								
Dyna-Gro Seed	D57TC29	12.3	37.5	66.2	6.5	53.0	64.4	21.1	3.9	69.2	3049	37475
Dyna-Gro Seed	D54VC14	11.0	40.4	72.9	7.1	49.0	63.0	23.3	4.2	68.7	3034	33130
Dyna-Gro Seed	D58VC90	10.8	42.6	75.1	7.1	53.9	62.3	18.8	4.5	67.1	2908	31239
Dyna-Gro Seed	D52DC82	10.7	38.7	72.3	7.1	50.1	64.3	22.7	4.6	69.2	3062	32617
	Trial Mean	11.2	39.8	71.6	6.9	51.5	63.5	21.5	4.3	68.5	3013	33615
	LSD P < 0.05	NS	NS	NS	NS	2.9	1.6	2.8	0.4	0.9	69.9	NS
	CV	17.7	13.9	7.0	10.4	3.5	1.6	8.2	5.6	0.8	1.5	16.9
	F Test	0.6314	0.6128	0.1438	0.5471	0.0102	0.0424	0.0239	0.0106	0.0015	0.0026	0.4793

Table 8A. New Mexico 2020 Forage Corn Performance Test - Agricultural Science Center at Los Lunas

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

Test Description

Location:	Management Practices:	Growing Conditions:
County/Area: Valencia	Previous Crop: fallow	
Longitude: -106.45	Planting Date: 1-Jun	
Latitude: 34.46	Harvest Date: 17-Sep	
Elevation: 4840 ft.		
Soil Name: Gila		
Soil Texture: loam		
Soil Depth: 60 in.		
	Production Inputs	
	<u>Rate</u> <u>Date</u>	
	Fertilizer:	
	Nitrogen 115 lb/a 16-Jun	
	Nitrogen 115 lb/a 30-Jun	
	P ₂ O ₅ lb/a	
	S lb/a	
	Zn lb/a	
	Herbicides:	
	Honcho (glyphosate) 2 pt/a 30-Jun	
	Insecticides:	
	None	
Test Design:		
Replications: 3		
Plot Length: 20 ft.		
Rows per Plot: 2		
Row Spacing: 30 in.		
Seeding Rate: 32000 seeds/a		
		Average
		Temp. Precip. Irrigation
		°F in. in.
		January
		February
		March
		April
		May 67.7 0.19
		June 73.1 0.30 6.59
		July 79.2 1.28 8.88
		August 78.3 0.15 11.64
		September† 66.3 1.10
		October
		November
		December
		†Sept 1-17
		Seasonal Precipitation 3.0 in.
		Total Irrigation 27.1 in.
		Date of Last Spring Frost: 16-Apr
		Date of First Fall Frost: 27-Oct
		Frost Free Period: 194 days

Table 8B. New Mexico 2020 Forage Corn Performance Test - Agricultural Science Center at Los Lunas

Results

Brand/Company Name	Hybrid/Variety Name	Moisture				Plant Height	CP	ADF	NDF	NDFD		Ash	TDN	NE _i	Milk/Ton	Milk/Acre
		Dry Forage	Green Forage	at Harvest	%					30hr	Starch					
		t/a	t/a	%	in	%	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dekalb/Bayer	DKC69-16RIB	10.5	29.9	66.6	102	8.1	25.8	48.0	50.7	22.6	3.9	67.9	0.694	3305	35911	
Dekalb/Bayer	DKC70-64RIB	10.4	29.8	68.6	108	8.0	26.1	48.6	50.0	21.5	3.9	66.5	0.684	3246	33892	
Dyna-Gro Seed	D58QC72	10.4	29.6	69.3	113	8.6	26.1	44.9	51.9	27.0	4.0	67.7	0.692	3314	34696	
Dyna-Gro Seed	D55VC80	10.0	28.4	65.8	106	8.6	23.1	43.7	51.3	27.9	4.2	68.5	0.704	3342	33746	
Dyna-Gro Seed	D58VC65	9.7	27.8	67.5	97	8.8	22.3	42.3	48.8	29.1	3.8	69.0	0.712	3419	33280	
Dyna-Gro Seed	D58VC90	9.6	27.5	67.2	102	8.9	24.0	45.0	49.4	25.6	3.7	68.7	0.709	3399	32703	
Dekalb/Bayer	DKC64-44RIB	9.5	27.1	67.6	102	8.5	22.1	43.0	52.9	27.7	4.1	69.7	0.720	3496	33118	
Dyna-Gro Seed	D53VC33	9.3	26.6	66.8	99	8.8	22.6	42.8	51.1	27.3	4.5	68.5	0.707	3391	31536	
Dyna-Gro Seed	D57VC17	9.2	26.2	64.4	102	8.3	24.5	46.1	50.1	25.0	4.0	68.1	0.702	3359	30765	
Dyna-Gro Seed	D54VC14	8.9	25.4	65.3	108	8.4	23.1	44.3	52.6	30.3	3.7	70.3	0.727	3541	31420	
Dyna-Gro Seed	45TC55	8.8	25.1	64.8	99	9.2	24.6	45.4	50.3	23.9	4.7	67.9	0.697	3343	29355	
Dyna-Gro Seed	D52DC82	8.4	24.0	68.0	103	8.6	27.1	48.7	52.0	26.4	4.8	67.3	0.681	3312	27862	
	Trial Mean	9.6	27.3	66.8	104	8.6	24.3	45.2	50.9	26.2	4.1	68.3	0.702	3372	32357	
	LSD (P > 0.05)	0.9	2.7	2.0	4	NS	NS	NS	NS	5.0	NS	NS	0.022	162	3770	
	CV	5.9	5.9	1.7	2.3	8.3	8.1	5.9	3.1	11.2	10.5	1.8	1.8	2.8	6.9	
	F Test	0.0016	0.0016	0.0005	<0.0001	0.7493	0.0512	0.0616	0.0924	0.0400	0.0544	0.0534	0.0058	0.0491	0.0106	

Table 9A. New Mexico 2020 Dryland Grain 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: 17-Jun Harvest Date: 4-Nov 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>30 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>60 lb/ac</td> <td>1-May</td> </tr> <tr> <td>Phos</td> <td>30 lb/ac</td> <td>1-May</td> </tr> <tr> <td>S</td> <td>9 lb/ac</td> <td>1-May</td> </tr> <tr> <td>Chelated Zn</td> <td>2 qt/ac</td> <td>1-May</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>2 pt/ac</td> <td>19-Jun</td> </tr> <tr> <td>Warrant</td> <td>2 qt/ac</td> <td>19-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	30 lb/ac	carryover	Nitrogen	60 lb/ac	1-May	Phos	30 lb/ac	1-May	S	9 lb/ac	1-May	Chelated Zn	2 qt/ac	1-May	Herbicides:			Atrazine	2 pt/ac	19-Jun	Warrant	2 qt/ac	19-Jun	Insecticides:			<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 style="text-align: center;">38.2</td><td></td><td></td></tr> <tr><td>February</td><td style="text-align: center;">38.0</td><td></td><td></td></tr> <tr><td>March</td><td style="text-align: center;">51.0</td><td></td><td></td></tr> <tr><td>April</td><td style="text-align: center;">52.4</td><td></td><td></td></tr> <tr><td>May</td><td style="text-align: center;">67.2</td><td style="text-align: center;">0.05</td><td></td></tr> <tr><td>June</td><td style="text-align: center;">75.8</td><td style="text-align: center;">1.16</td><td></td></tr> <tr><td>July</td><td style="text-align: center;">79.0</td><td style="text-align: center;">3.90</td><td></td></tr> <tr><td>August</td><td style="text-align: center;">79.0</td><td style="text-align: center;">0.55</td><td></td></tr> <tr><td>September</td><td style="text-align: center;">65.5</td><td style="text-align: center;">0.56</td><td></td></tr> <tr><td>October</td><td style="text-align: center;">56.0</td><td style="text-align: center;">0.52</td><td></td></tr> <tr><td>November 1-4</td><td style="text-align: center;">50.5</td><td style="text-align: center;">0.00</td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> <tr> <td colspan="2" style="text-align: right;">Seasonal Precipitation:</td> <td style="text-align: center;">6.7 in.</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">Total Irrigation:</td> <td style="text-align: center;">0.0 in.</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">Date of Last Spring Frost:</td> <td style="text-align: center;">18-Apr</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">Date of First Fall Frost:</td> <td style="text-align: center;">16-Oct</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">Frost Free Period:</td> <td style="text-align: center;">181 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	38.2			February	38.0			March	51.0			April	52.4			May	67.2	0.05		June	75.8	1.16		July	79.0	3.90		August	79.0	0.55		September	65.5	0.56		October	56.0	0.52		November 1-4	50.5	0.00		December				Seasonal Precipitation:		6.7 in.		Total Irrigation:		0.0 in.		Date of Last Spring Frost:		18-Apr		Date of First Fall Frost:		16-Oct		Frost Free Period:		181 days	
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Table 9B. New Mexico 2020 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 %					
Dyna-Gro Seed	GX17912	102.9 ***	5763 ***	10.7	56.1	15.6	0.5	0	15-Aug
Dyna-Gro Seed	M57GB19	100.2	5610	10.5	52.8	16.7	0.8	0	16-Aug
LG Seeds	2730B	94.1	5266	11.1	52.8	21.9	1.2	0	16-Aug
Dyna-Gro Seed	GX19981	90.4	5064	10.5	54.3	22.6 ***	0.0	0	24-Aug
Dyna-Gro Seed	M59GB94	84.6	4739	11.4	54.6	18.4	0.0	0	15-Aug
S&W Seed Co.	SP 68M57	79.2	4437	13.3 ***	53.7	16.5	0.4	0	17-Aug
LG Seeds	2620C	78.5	4396	11.4	51.7	17.3	1.0	0	15-Aug
Dyna-Gro Seed	M59GB57	74.6	4181	11.2	58.3 ***	16.0	0.4	0	10-Aug
Dyna-Gro Seed	M54GR24	74.4	4165	10.9	57.2	17.6	2.1 ***	0	14-Aug
S&W Seed Co.	SP 43M80	72.5	4062	10.8	55.0	17.3	0.0	3	14-Aug
Dyna-Gro Seed	GX18919	72.0	4031	11.3	57.8	16.4	1.6	0	6-Aug
LG Seeds	1510C	71.1	3979	10.8	52.9	17.6	0.3	0	9-Jul
S&W Seed Co.	SP 31A15	68.0	3806	11.0	54.5	15.1	0.5	0	5-Jul
Dyna-Gro Seed	M74GB17	60.0	3359	12.1	54.1	16.8	0.0	0	25-Aug
Dyna-Gro Seed	M71GR91	59.1	3309	12.2	46.5	20.9	0.0	0	25-Aug
Dyna-Gro Seed	M72GB71	58.7	3287	10.8	54.4	19.8	0.3	0	26-Aug ***
LG Seeds	3180B	58.2	3261	13.2	50.0	17.6	0.3	0	21-Aug
Dyna-Gro Seed	GX20564	58.1	3255	11.9	51.1	20.5	0.7	0	19-Aug
Dyna-Gro Seed	M60GB31	56.5	3164	11.6	52.1	18.9	0.8	0	23-Aug
Dyna-Gro Seed	M57GC29	52.3	2925	11.7	54.3	15.2	0.4	0	16-Aug
Dyna-Gro Seed	M69GR88	50.8	2847	11.9	56.5	17.1	1.2	0	25-Aug
Dyna-Gro Seed	M60GB88	45.2	2529	11.1	54.5	13.5	0.0	0	18-Aug
S&W Seed Co.	SP 25C10	43.7	2447	10.6	48.7	17.2	2.1 ***	23 ***	5-Aug
S&W Seed Co.	SP 33S40	33.0	1848	10.2	53.8	20.3	1.4	0	20-Aug
	Trial Mean	68.3	3822	11.3	53.7	17.8	0.7	1.1	14-Aug
	LSD (P > 0.05)	NS	NS	NS	NS	NS	NS	NS	NS
	CV	31.6	31.6	12.6	7.1	15.7	153.0	745.4	7.8
	F Test	0.2310	0.2310	0.5933	0.9761	0.7870	0.4722	0.2835	0.1651

*** 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 2020 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, M. Lopez, and J. Hill

Test Description

<p>Location:</p> <p>County/Area: Eddy Longitude: -104.22 Latitude: 32.45 Elevation: 3356 ft. Soil Name: Reagan Soil Texture: loam Soil Depth: 32 in.</p> <p>Test Design:</p> <p>Replications: 3 Plot Length: 20 ft. Rows per Plot: 4 Row Spacing: 40 in.</p> <p>Seeding Rate: 50,000 seed/a</p>	<p>Management Practices:</p> <p>Previous Crop: cotton Planting Date: 1-Jun Harvest Date: 1-Oct</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>55 lb/a</td> <td>8-Jun</td> </tr> <tr> <td>Nitrogen</td> <td>13 lb/a</td> <td>8-Jun</td> </tr> <tr> <td>P2O5</td> <td>62 lb/a</td> <td>8-Jun</td> </tr> </tbody> </table> <p>Herbicides:</p> <p>Huskie 16 oz/a 15-Jun</p> <p>Insecticides:</p> <p>None</p>		Rate	Date	Fertilizer:			Nitrogen	55 lb/a	8-Jun	Nitrogen	13 lb/a	8-Jun	P2O5	62 lb/a	8-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>42.6</td><td>0.39</td><td></td></tr> <tr><td>February</td><td>42.9</td><td>0.56</td><td></td></tr> <tr><td>March</td><td>55.7</td><td>2.95</td><td></td></tr> <tr><td>April</td><td>61.1</td><td>0.04</td><td></td></tr> <tr><td>May</td><td>72.8</td><td>0.00</td><td>5.30</td></tr> <tr><td>June</td><td>80.0</td><td>0.28</td><td>15.60</td></tr> <tr><td>July</td><td>85.1</td><td>0.60</td><td>9.50</td></tr> <tr><td>August</td><td>82.9</td><td>1.24</td><td>11.70</td></tr> <tr><td>September</td><td>70.2</td><td>0.02</td><td>4.90</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> </tbody> </table> <p>Seasonal Precipitation 2.18 in. Total Irrigation 47.00 in.</p> <p>Date of Last Spring Frost: 13-Apr Date of First Fall Frost: 27-Oct Frost Free Period: 197 days</p>		Average Temp. °F	Precip. in.	Irrigation in.	January	42.6	0.39		February	42.9	0.56		March	55.7	2.95		April	61.1	0.04		May	72.8	0.00	5.30	June	80.0	0.28	15.60	July	85.1	0.60	9.50	August	82.9	1.24	11.70	September	70.2	0.02	4.90	October				November				December			
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Table 10B. New Mexico 2020 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 Moisture			CP	NDF	NDFD 30hr	Ash	TDN	NE _i	Milk/ Ton	Milk/ Acre
					Dry Forage	Green Forage	at Harvest								
					t/a	t/a	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	5.7	20.5	72.4	5.5	54.7	68.0	7.6	52.5	0.438	1647	9318
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	5.5	21.2	74.5	4.8	60.6	67.0	7.0	53.4	0.452	1731	9566
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	5.2	17.0	68.9	3.3	57.7	67.7	7.1	51.8	0.429	1589	8278
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	5.0	16.9	70.6	4.7	54.2	68.7	7.3	52.0	0.430	1601	8054
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	4.8	18.6	73.7	4.7	57.0	69.7	8.8	53.5	0.445	1700	8139
Browning Seed, Inc.	Browning 300	FS		N	4.4	15.7	72.2	5.0	57.3	65.0	7.8	51.2	0.430	1580	6887
Dyna-Gro Seed	First Graze	SxS	ME	N	4.3	15.1	68.6	4.1	57.9	64.0	8.5	51.8	0.440	1640	7154
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	4.1	18.2	77.0	5.9	60.3	66.0	9.0	54.4	0.465	1815	7441
Dyna-Gro Seed	TopTon	FS	F	N	4.0	13.0	67.6	4.0	57.3	67.7	7.9	53.6	0.451	1730	6866
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	4.0	13.2	69.3	5.4	59.2	60.3	9.6	51.3	0.446	1655	6483
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	3.7	12.8	69.9	3.9	52.9	69.7	8.7	52.4	0.432	1618	6021
Browning Seed, Inc.	Tif Leaf 3	PM			3.7	11.1	65.7	4.8	53.6	67.7	8.8	53.3	0.449	1716	6118
Dyna-Gro Seed	Super Sile 20	FS	MF	N	3.7	12.2	69.3	4.9	56.8	61.7	7.7	51.6	0.445	1659	6052
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	N	3.5	13.9	74.3	5.1	59.2	65.0	9.5	54.1	0.465	1804	6238
Browning Seed, Inc.	Maxi Pearl	PM			3.2	10.7	68.9	4.6	55.2	65.0	8.7	51.5	0.434	1606	5148
Dyna-Gro Seed	Super Sile 30	FS	ME	N	3.2	10.9	68.7	5.2	54.8	66.7	9.2	51.5	0.435	1616	5100
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	2.2	7.0	69.4	5.4	56.3	62.3	8.8	52.4	0.453	1716	3664
Trial Mean					4.1	14.6	70.7	4.8	56.8	66.0	8.3	52.5	0.443	1672	6854
LSD (P < 0.05)					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
CV					35.3	41.7	5.6	28.9	7.2	9.7	17.6	3.6	4.7	7.7	34.7
F Test					0.3373	0.3432	0.1140	0.7756	0.5331	0.9013	0.5087	0.5978	0.5725	0.5471	0.2911

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

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

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

Table 11A. New Mexico 2020 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 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: 19-May Harvest Date: 19-Sep 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>10 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>56 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>Phos</td> <td>35 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>S</td> <td>8.25 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>Chelated Zn</td> <td>2 qt/ac</td> <td>pre-plant</td> </tr> <tr> <td>Nitrogen</td> <td>90 lb/ac</td> <td>21-May</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/ac</td> <td>pre-plant</td> </tr> <tr> <td>Panther SC</td> <td>1 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Glyphosate</td> <td>48 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Dicamba HD</td> <td>8 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/ac</td> <td>21-May</td> </tr> <tr> <td>Buccaneer</td> <td>1 qt/ac</td> <td>21-May</td> </tr> <tr> <td>Sharpen</td> <td>1.5 oz/ac</td> <td>21-May</td> </tr> <tr> <td>Warrant</td> <td>1.5 oz/ac</td> <td>21-May</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	10 lb/ac	carryover	Nitrogen	56 lb/ac	pre-plant	Phos	35 lb/ac	pre-plant	S	8.25 lb/ac	pre-plant	Chelated Zn	2 qt/ac	pre-plant	Nitrogen	90 lb/ac	21-May	Herbicides:			Atrazine	1 pt/ac	pre-plant	Panther SC	1 oz/ac	pre-plant	Glyphosate	48 oz/ac	pre-plant	Dicamba HD	8 oz/ac	pre-plant	Atrazine	1 pt/ac	21-May	Buccaneer	1 qt/ac	21-May	Sharpen	1.5 oz/ac	21-May	Warrant	1.5 oz/ac	21-May	<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>38.2</td><td></td><td></td></tr> <tr><td>February</td><td>38.0</td><td></td><td></td></tr> <tr><td>March</td><td>51.0</td><td></td><td></td></tr> <tr><td>April</td><td>52.4</td><td></td><td></td></tr> <tr><td>May 1-19</td><td>67.2</td><td>0.05</td><td>1.10</td></tr> <tr><td>June</td><td>75.8</td><td>1.16</td><td>2.00</td></tr> <tr><td>July</td><td>79.0</td><td>3.90</td><td>2.20</td></tr> <tr><td>August</td><td>79.0</td><td>0.55</td><td>7.40</td></tr> <tr><td>September 1-19</td><td>65.5</td><td>0.56</td><td>1.00</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>6.2 in.</td><td></td></tr> <tr><td colspan="2">Total Irrigation:</td><td>13.7 in.</td><td></td></tr> <tr><td colspan="2">Date of Last Spring Frost:</td><td>18-Apr</td><td></td></tr> <tr><td colspan="2">Date of First Fall Frost:</td><td>16-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	38.2			February	38.0			March	51.0			April	52.4			May 1-19	67.2	0.05	1.10	June	75.8	1.16	2.00	July	79.0	3.90	2.20	August	79.0	0.55	7.40	September 1-19	65.5	0.56	1.00	October				November				December				Seasonal Precipitation:		6.2 in.		Total Irrigation:		13.7 in.		Date of Last Spring Frost:		18-Apr		Date of First Fall Frost:		16-Oct		Frost Free Period:		181 days	
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Table 11B. New Mexico 2020 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum Type	Maturity Group	Brown Midrib	Dry Forage	Green Forage	Moisture	CP	NDF	NDFD 48hr	Ash	TDN	NE _i	Milk/ Ton	Milk/ Acre	
							at Harvest									
					t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	Super Sile 30	FS	ME	N	9.8	29.7	67.0	7.9	52.0	64.5	5.0	65.1	0.670	3142	30955	
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	9.6	30.1	68.3	6.8	59.6	70.3	5.3	64.0	0.653	3108	29674	
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	9.4	26.1	63.9	6.2	66.0	64.2	4.7	60.1	0.613	2782	26247	
S&W Seed Co.	SS405	FS	F	N	9.2	23.3	65.0	7.2	58.8	64.5	4.6	64.3	0.660	3084	28303	
Dyna-Gro Seed	Super Sile 20	FS	MF	N	9.2	30.2	69.6	6.6	54.9	65.6	5.6	61.9	0.630	2920	26759	
Dyna-Gro Seed	TopTon	FS	F	N	9.0	29.7	69.6	6.0	53.3	68.3	5.7	61.6	0.633	2919	26285	
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	8.9	38.0	76.5	7.1	61.3	70.2	6.9	62.5	0.640	3001	26736	
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	N	7.7	22.5	65.9	8.3	50.5	65.6	4.5	67.8	0.700	3343	25608	
S&W Seed Co.	NK300	FS	ME	N	7.4	18.5	59.6	8.4	47.6	68.2	4.5	69.8	0.723	3505	25990	
S&W Seed Co.	SP 3905 BD BMR	FS	ME	Y	6.7	20.0	66.7	8.7	42.9	73.4	5.0	70.3	0.726	3584	23852	
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	6.6	19.6	66.8	8.5	43.6	73.9	5.4	70.7	0.730	3611	23667	
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	6.4	21.9	70.5	7.4	47.7	73.9	7.0	63.6	0.653	3107	20025	
S&W Seed Co.	SP 3904 BD BMR	FS	MF	Y	6.4	23.8	72.9	8.9	50.8	71.3	6.3	68.2	0.700	3415	21978	
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	6.3	20.2	68.8	7.1	54.3	74.1	5.9	65.9	0.680	3270	20655	
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	6.1	22.5	72.8	9.2	50.4	70.9	6.7	67.6	0.696	3373	20689	
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	5.6	17.4	68.0	7.6	53.8	65.0	5.9	62.8	0.646	2981	16566	
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	5.2	15.0	65.7	8.5	53.3	64.8	5.0	65.4	0.673	3167	16535	
Dyna-Gro Seed	First Graze	SxS	ME	N	5.2	16.5	68.6	7.8	55.2	64.7	6.2	62.4	0.640	2948	15262	
Trial Mean					7.5	23.8	68.1	7.7	53.1	68.5	5.56	65.2	0.670	3181	23654	
LSD (P<0.05)					NS	NS	NS	0.92	NS	NS	NS	NS	NS	NS	NS	NS
CV					9.2	7.8	3.2	7.2	5.5	2.1	8.6	2.6	2.8	4.0	10.5	
F Test					0.3839	0.1703	0.2990	0.0024	0.3278	0.3250	0.1437	0.1245	0.0940	0.1309	0.1788	

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

§Maturity Group: E = Early, M = Medium, F = Full, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = (Y) Brown Midrib, (N) Conv = Conventional

Table 12A. New Mexico 2020 Dryland Forage 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>Test Design:</p> <p>Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 50,000 seed/a</p>	<p>Management Practices:</p> <p>Previous Crop: fallow Planting Date: 17-Jun Harvest Date: 21-Sep</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>30 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>60 lb/ac</td> <td>1-May</td> </tr> <tr> <td>Phos</td> <td>30 lb/ac</td> <td>1-May</td> </tr> <tr> <td>S</td> <td>9 lb/ac</td> <td>1-May</td> </tr> <tr> <td>Chelated Zn</td> <td>2 qt/ac</td> <td>1-May</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>2 pt/ac</td> <td>19-Jun</td> </tr> <tr> <td>Warrant</td> <td>2 qt/ac</td> <td>19-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	30 lb/ac	carryover	Nitrogen	60 lb/ac	1-May	Phos	30 lb/ac	1-May	S	9 lb/ac	1-May	Chelated Zn	2 qt/ac	1-May	Herbicides:			Atrazine	2 pt/ac	19-Jun	Warrant	2 qt/ac	19-Jun	Insecticides:			<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>38.2</td><td></td><td></td></tr> <tr><td>February</td><td>38.0</td><td></td><td></td></tr> <tr><td>March</td><td>51.0</td><td></td><td></td></tr> <tr><td>April</td><td>52.4</td><td></td><td></td></tr> <tr><td>May</td><td>67.2</td><td>0.05</td><td></td></tr> <tr><td>June</td><td>75.8</td><td>1.16</td><td></td></tr> <tr><td>July</td><td>79.0</td><td>3.90</td><td></td></tr> <tr><td>August</td><td>79.0</td><td>0.55</td><td></td></tr> <tr><td>September 1-21</td><td>65.5</td><td>0.56</td><td></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> </tbody> </table> <p>Seasonal Precipitation: 6.2 in. Total Irrigation: 0.0 in.</p> <p>Date of Last Spring Frost: 18-Apr Date of First Fall Frost: 16-Oct Frost Free Period: 181 days</p>		Average Temp. °F	Precip. in.	Irrigation in.	January	38.2			February	38.0			March	51.0			April	52.4			May	67.2	0.05		June	75.8	1.16		July	79.0	3.90		August	79.0	0.55		September 1-21	65.5	0.56		October				November				December			
	Rate	Date																																																																																					
Fertilizer:																																																																																							
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Table 12B. New Mexico 2020 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	NDF	NDFD 48hr	Ash	TDN	NE _i	Milk/Ton	Milk/Acre
					Dry Forage	Green Forage	at Harvest								
					t/a	t/a	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	3.6	11.9	69.3	9.3	48.1	75.6	5.6	65.7	0.676	3269	11736
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	3.5	12.2	70.8	9.3	55.2	71.3	6.2	63.0	0.646	3044	10620
Dyna-Gro Seed	Super Sile 30	FS	ME	N	3.2	11.0	70.7	10.4	53.4	73.1	6.1	62.8	0.643	3043	9697
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	2.9	10.7	72.2	9.7	50.5	74.5	6.3	63.5	0.650	3099	9074
Dyna-Gro Seed	TopTon	FS	F	N	2.8	9.5	70.4	9.7	51.4	71.4	6.0	63.9	0.656	3109	8733
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	2.8	7.3	61.4	8.1	51.9	69.1	5.1	64.7	0.663	3150	8811
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	2.6	9.5	72.0	9.7	48.0	78.8	7.1	64.6	0.666	3212	8491
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	2.4	9.6	74.7	11.0	51.4	76.3	7.1	65.1	0.670	3232	7601
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	2.3	6.2	62.8	9.0	50.5	70.4	4.7	65.4	0.673	3208	7342
Dyna-Gro Seed	Super Sile 20	FS	MF	N	2.3	8.1	71.8	10.8	52.3	74.2	6.5	64.0	0.656	3138	7120
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	2.2	6.8	67.1	9.5	46.7	77.3	6.4	65.2	0.670	3248	7258
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	N	2.2	7.3	70.0	10.3	52.4	72.3	6.1	62.9	0.643	3047	6633
Dyna-Gro Seed	First Graze	SxS	ME	N	2.1	6.4	67.5	9.2	50.5	70.0	5.4	63.6	0.653	3079	6449
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	1.9	6.7	70.4	10.7	50.2	76.4	6.8	64.8	0.663	3208	6180
Browning Seed, Inc.	Browning 300	FS	M	N	1.4	4.0	65.1	10.0	48.5	69.3	5.1	64.9	0.666	3164	4356
Trial Mean					2.5	8.5	69.1	9.8	50.7	73.3	6.0	64.3	0.660	3150	8006
LSD (P<0.05)					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
CV					28.8	33.6	4.3	8.0	3.6	2.5	11.8	1.8	2.2	2.6	28.4
F Test					0.1301	0.1676	0.7604	0.4916	0.7123	0.3378	0.8424	0.6399	0.5122	0.5199	0.1325

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

§Maturity Group: E = Early, M = Medium, F = Full, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = (Y) Brown Midrib, (N) Conv = Conventional

Table 13A. New Mexico 2020 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Los Lunas

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

Test Description

Location:	Management Practices:	Growing Conditions:
County/Area: Valencia	Previous Crop: alfalfa/oats	
Longitude: -106.45	Planting Date: 1-Jun	Average
Latitude: 34.46	Harvest Date: 21-Sep	Temp. Precip. Irrigation
Elevation: 4840 ft.		°F in. in.
Soil Name: Gila		January
Soil Texture: loam		February
Soil Depth: 60 in.		March
		April
		May
		June 73.1 0.30 8.91
		July 79.2 1.28 9.33
		August 78.3 0.15 10.43
		September 1-21 66.3 1.10 0.00
		October
		November
		December
		Seasonal Precipitation 2.83 in.
		Total Irrigation 28.67 in.
		Date of Last Spring Frost: 16-Apr
		Date of First Fall Frost: 27-Oct
		Frost Free Period: 194 days
Test Design:	Production Inputs	
Replications: 3	Rate Date	
Plot Length: 20 ft.	Fertilizer:	
Rows per Plot: 2	Nitrogen 115 lb/a 16-Jun	
Row Spacing: 30 in.	Nitrogen 115 lb/a 30-Jun	
	P ₂ O ₅ lb/a	
	K ₂ O lb/a	
	Fe lb/a	
Seeding Rate: 100,000 seed/a	Herbicides:	
Notes:	Unison 2 pts/ac 30-Jun	
Harvested early due to heavy Sugarcane Aphid infestation	Insecticides:	
	None	

Table 13B. New Mexico 2020 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	65% Adj	Moisture	Plant
					Forage	Green Forage	at Harvest	Height
					t/a	t/a	%	in
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	11.8	33.8	62.8	140
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	10.1	29.0	69.2	137
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	9.7	27.8	76.3	123
Dyna-Gro Seed	First Graze	SxS	ME	N	9.1	26.1	65.1	104
S&W Seed Co.	SS405	FS	F	N	9.0	25.6	66.9	113
Browning Seed, Inc.	Silage Master	FS	MF	N	8.1	23.1	72.9	104
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	N	7.9	22.6	70.3	76
Dyna-Gro Seed	Super Sile 30	FS	ME	N	7.9	22.6	73.9	99
Dyna-Gro Seed	Super Sile 20	FS	MF	N	7.6	21.6	77.8	104
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	7.4	21.2	66.9	99
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	7.2	20.7	68.7	81
Dyna-Gro Seed	Top Ton	FS	F	N	7.0	20.1	74.0	107
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	6.9	19.9	75.0	105
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	6.4	18.4	70.9	106
S&W Seed Co.	NK300	FS	ME	N	6.3	18.1	71.5	74
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	6.1	17.3	74.5	68
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	5.6	16.0	64.5	97
Browning Seed, Inc.	Sweet Sioux WMR	SxS	M	N	4.9	13.9	71.0	106
S&W Seed Co.	SP 3905 BD BMR	FS	ME	Y	4.6	13.1	75.5	75
S&W Seed Co.	SP 3904 BD BMR	FS	MF	Y	3.9	11.2	78.0	69
Trial Mean					7.4	21.1	71.3	99
LSD (P<0.05)					1.9	5.4	2.8	7
CV					9.5	9.5	2.4	4.4
F Test					<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, F = Full, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = (Y) Brown Midrib, (N) Conv = Conventional

Table 13C. New Mexico 2020 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	ADF	NDF	NDFD			NE _l	Milk/Ton	Milk/Acre
								30hr	Ash	TDN			
					%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	6.9	35.3	62.3	54.6	5.5	62.0	0.634	2945	34857
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	7.5	34.2	60.0	59.9	6.1	64.7	0.665	3182	32261
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	7.4	34.8	59.1	61.4	7.3	64.4	0.661	3170	30793
Dyna-Gro Seed	First Graze	SxS	ME	N	7.9	32.4	53.6	53.4	6.5	62.8	0.643	2992	27327
S&W Seed Co.	SS405	FS	F	N	7.9	33.6	56.5	52.9	5.3	64.3	0.658	3075	29228
Browning Seed, Inc.	Silage Master	FS	MF	N	7.5	33.5	56.0	53.8	5.6	64.9	0.667	3149	25377
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	N	8.8	34.6	57.7	55.4	5.8	66.1	0.680	3243	25576
Dyna-Gro Seed	Super Sile 30	FS	ME	N	6.7	36.2	60.3	55.4	6.1	65.4	0.673	3203	25257
Dyna-Gro Seed	Super Sile 20	FS	MF	N	7.8	36.8	60.1	52.8	5.9	65.1	0.669	3160	23835
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	7.8	32.8	54.5	51.7	5.8	63.9	0.656	3071	22790
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	8.6	31.3	51.4	58.9	6.3	70.1	0.725	3574	25894
Dyna-Gro Seed	Top Ton	FS	F	N	7.3	33.1	55.8	56.3	5.7	65.6	0.675	3218	22510
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	8.1	36.8	59.3	56.9	6.8	67.7	0.698	3381	23486
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	7.7	33.8	56.0	50.7	5.9	62.5	0.640	2967	19096
S&W Seed Co.	NK300	FS	ME	N	7.5	39.0	61.7	54.2	5.9	65.4	0.673	3200	20383
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	9.9	35.0	56.3	59.0	7.7	66.9	0.689	3340	20228
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	7.0	37.1	60.0	59.7	7.6	65.3	0.671	3221	17998
Browning Seed, Inc.	Sweet Sioux WMR	SxS	M	N	8.2	32.7	54.0	53.4	6.0	64.5	0.663	3124	15223
S&W Seed Co.	SP 3905 BD BMR	FS	ME	Y	8.0	34.1	54.9	61.1	7.2	70.4	0.728	3608	16507
S&W Seed Co.	SP 3904 BD BMR	FS	MF	Y	9.8	32.9	53.4	58.7	7.8	66.4	0.684	3304	12931
Trial Mean					7.9	34.5	57.1	56.0	6.3	65.4	0.673	3206	23577
LSD (P<0.05)					1.1	2.9	3.7	2.1	1.1	2.3	0.026	170	5666
CV					8.7	5.2	3.9	2.3	10.3	2.2	2.3	3.2	10.5
F Test					<0.0001	0.0006	<0.0001	<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

[§]Maturity Group: E = Early, M = Medium, F = Full, PS = Photoperiod Sensitive

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

Table 14A. New Mexico 2020 Irrigated Forage Sorghum Performance Test (Silage) - Rex E. Kirksey Agricultural Science Center at Tucumcari

Investigators: L.M. Lauriault, G. Martinez, J. Box, P. Cooksey, J. Jennings, and S. Jennings

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: 14-May Harvest Dates: 22-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 style="text-align: center;">lb/a</td> <td style="text-align: center;">carryover</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">60 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> <tr> <td>S</td> <td style="text-align: center;">10.8 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> </tbody> </table> Pesticides (herbicides and insecticides): Atrazine 2 pt/A 18-May Brawl 16 fl oz/A 18-May Detonate 8 fl oz/A 28-Jun		Rate	Date	Fertilizer:			Nitrogen	lb/a	carryover	Nitrogen	60 lb/a	1-Jul	S	10.8 lb/a	1-Jul	<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 style="text-align: center;">41.3</td><td style="text-align: center;">0.92</td><td style="text-align: center;">0.00</td></tr> <tr><td>February</td><td style="text-align: center;">42.3</td><td style="text-align: center;">0.63</td><td style="text-align: center;">0.00</td></tr> <tr><td>March</td><td style="text-align: center;">47.4</td><td style="text-align: center;">0.82</td><td style="text-align: center;">0.00</td></tr> <tr><td>April</td><td style="text-align: center;">57.7</td><td style="text-align: center;">0.12</td><td style="text-align: center;">1.25</td></tr> <tr><td>May</td><td style="text-align: center;">63.2</td><td style="text-align: center;">0.54</td><td style="text-align: center;">4.25</td></tr> <tr><td>June</td><td style="text-align: center;">75.0</td><td style="text-align: center;">0.40</td><td style="text-align: center;">7.13</td></tr> <tr><td>July</td><td style="text-align: center;">82.0</td><td style="text-align: center;">2.29</td><td style="text-align: center;">4.33</td></tr> <tr><td>August</td><td style="text-align: center;">81.7</td><td style="text-align: center;">0.79</td><td style="text-align: center;">4.00</td></tr> <tr><td>September</td><td style="text-align: center;">77.0</td><td style="text-align: center;">0.55</td><td style="text-align: center;">1.00</td></tr> <tr><td>October</td><td style="text-align: center;">54.2</td><td style="text-align: center;">1.23</td><td style="text-align: center;">0.00</td></tr> <tr><td>November</td><td style="text-align: center;">45.3</td><td style="text-align: center;">0.54</td><td style="text-align: center;">0.00</td></tr> <tr><td>December</td><td style="text-align: center;">42.2</td><td style="text-align: center;">0.12</td><td style="text-align: center;">0.00</td></tr> </tbody> </table> Seasonal Precipitation 5.8 in. Total Irrigation 20.7 in. Date of Last Spring Frost: 17-Apr Date of First Fall Frost: 24-Oct Frost Free Period: 190 days		Average Temp. °F	Precip. in.	Irrigation in.	January	41.3	0.92	0.00	February	42.3	0.63	0.00	March	47.4	0.82	0.00	April	57.7	0.12	1.25	May	63.2	0.54	4.25	June	75.0	0.40	7.13	July	82.0	2.29	4.33	August	81.7	0.79	4.00	September	77.0	0.55	1.00	October	54.2	1.23	0.00	November	45.3	0.54	0.00	December	42.2	0.12	0.00
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Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 80,000 seeds/ac																																																																					

Table 14B. New Mexico 2020 Irrigated Forage Sorghum Performance Test (Silage) - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Moisture			CP	NDF	NDFD 48hr	Ash	TDN	NE _i	Milk/Ton	Milk/Acre
			Dry Forage	Green Forage	at Harvest								
			t/a	t/a	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	F72FS05 (SCA)	FS	5.7	11.2	50.9	7.4	65.1	55.0	6.0	62.5	0.642	2464	14113
Dyna-Gro Seed	Super Sile 20	FS	5.6	9.1	59.2	6.8	67.6	52.5	6.2	59.7	0.611	2266	12799
Dyna-Gro Seed	Super Sile 30	FS	5.5	10.8	50.5	6.8	66.4	55.3	5.3	61.5	0.630	2383	13022
Dyna-Gro Seed	Fullgraze II BMR	SxS	5.4	10.9	49.0	6.6	65.5	59.0	5.2	62.3	0.638	2434	13027
Dyna-Gro Seed	TopTon	FS	5.0	10.7	48.1	7.0	62.9	58.7	6.2	63.3	0.650	2521	12673
Browning Seed, Inc.	Headless Wonder PPS	SxS	4.8	9.5	50.5	7.2	66.6	56.0	5.7	61.2	0.627	2366	11250
Browning Seed, Inc.	Cadan 99B WMR	SxS	4.7	7.5	61.5	6.3	69.3	50.0	5.3	58.5	0.597	2170	10019
Dyna-Gro Seed	Danny Boy II BMR	SxS	4.6	13.3	34.3	7.6	66.2	62.0	7.4	61.7	0.632	2418	10955
Dyna-Gro Seed	Dynagraze II	SxS	4.5	7.5	61.2	6.5	68.2	50.3	4.6	59.5	0.608	2230	10064
Dyna-Gro Seed	First Graze	SxS	4.5	8.0	59.7	6.6	68.2	51.7	5.1	60.0	0.614	2272	10614
Dyna-Gro Seed	F72FS25 BMR	FS	4.3	9.1	48.4	7.3	64.0	58.5	5.4	63.2	0.649	2505	10700
Dyna-Gro Seed	Fullgraze II	SxS	4.1	8.8	47.7	6.4	67.0	55.3	4.0	62.1	0.637	2411	9925
Dyna-Gro Seed	F74FS23 BMR	FS	4.0	8.2	50.5	7.0	65.4	58.8	6.3	61.8	0.633	2413	9615
Browning Seed, Inc.	Three Little Indians	SxS	4.0	7.0	59.6	6.4	69.7	51.5	4.6	59.9	0.613	2262	9139
Dyna-Gro Seed	F70FS91 BMR	FS	3.9	7.9	50.9	6.4	67.2	55.3	5.1	59.8	0.611	2259	8549
Dyna-Gro Seed	F71FS72 BMR	FS	3.4	6.8	51.7	6.8	66.2	60.5	4.8	62.3	0.639	2432	8208
Dyna-Gro Seed	Super Sweet 10	SxS	2.9	5.6	54.1	6.2	69.8	50.5	4.9	58.9	0.601	2188	6279
Trial Mean			4.5	8.7	52.7	6.7	66.8	55.2	5.3	61.0	0.625	2347	10507
LSD P < 0.05			NS	NS	NS	NS	NS	7.1	1.1	NS	NS	NS	NS
CV			33.6	32.6	18.0	13.9	5.8	8.9	14.2	5.0	5.5	9.4	35.0
F Test			0.4750	0.1742	0.1796	0.8541	0.5982	0.0387	0.0011	0.6203	0.6267	0.5907	0.3765

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

Table 15A. New Mexico 2020 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, M. Lopez, and J. Hill

Test Description

Location:	Management Practices:	Growing Conditions:																																																																										
County/Area: Eddy Longitude: -104.22 Latitude: 32.45 Elevation: 3356 ft. Soil Name: Reagan Soil Texture: loam Soil Depth: 32 in.	Previous Crop: cotton Planting Date: 1-Jun Harvest Date: 3-Aug 30-Oct <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>Nitrogen</td> <td style="text-align: center;">55 lb/a</td> <td style="text-align: center;">8-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">13 lb/a</td> <td style="text-align: center;">8-Jun</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">55 lb/a</td> <td style="text-align: center;">12-Aug</td> </tr> <tr> <td>P2O5</td> <td style="text-align: center;">62 lb/a</td> <td style="text-align: center;">8-Jun</td> </tr> </tbody> </table> Herbicides: Huskie 16 oz/a 15-Jun Insecticides: None		Rate	Date	Fertilizer:			Nitrogen	55 lb/a	8-Jun	Nitrogen	13 lb/a	8-Jun	Nitrogen	55 lb/a	12-Aug	P2O5	62 lb/a	8-Jun	<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;">42.6</td><td style="text-align: center;">0.39</td><td></td></tr> <tr><td>February</td><td style="text-align: center;">42.9</td><td style="text-align: center;">0.56</td><td></td></tr> <tr><td>March</td><td style="text-align: center;">55.7</td><td style="text-align: center;">2.95</td><td></td></tr> <tr><td>April</td><td style="text-align: center;">61.1</td><td style="text-align: center;">0.04</td><td></td></tr> <tr><td>May</td><td style="text-align: center;">72.8</td><td style="text-align: center;">0.00</td><td style="text-align: center;">5.30</td></tr> <tr><td>June</td><td style="text-align: center;">80.0</td><td style="text-align: center;">0.28</td><td style="text-align: center;">3.90</td></tr> <tr><td>July</td><td style="text-align: center;">85.1</td><td style="text-align: center;">0.60</td><td style="text-align: center;">9.50</td></tr> <tr><td>August</td><td style="text-align: center;">82.9</td><td style="text-align: center;">1.24</td><td style="text-align: center;">11.70</td></tr> <tr><td>September</td><td style="text-align: center;">70.2</td><td style="text-align: center;">0.02</td><td style="text-align: center;">4.90</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> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Seasonal Precipitation</td> <td style="text-align: right;">2.18 in.</td> </tr> <tr> <td>Total Irrigation</td> <td style="text-align: right;">35.30 in.</td> </tr> </table> Date of Last Spring Frost: 13-Apr Date of First Fall Frost: 27-Oct Frost Free Period: 197 days		Average Temp. °F	Precip. in.	Irrigation in.	January	42.6	0.39		February	42.9	0.56		March	55.7	2.95		April	61.1	0.04		May	72.8	0.00	5.30	June	80.0	0.28	3.90	July	85.1	0.60	9.50	August	82.9	1.24	11.70	September	70.2	0.02	4.90	October				November				December				Seasonal Precipitation	2.18 in.	Total Irrigation	35.30 in.
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 4 Row Spacing: 40 in. Seeding Rate: 50,000 seed/a Notes: Heavy weed infestations caused significant field variability																																																																												

Table 15B. New Mexico 2020 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
S&W Seed Co.	Sordan 79	SxS	0.9	5.2	82.7	1935	1707	6.0	26.8	85.4	1704	6476	6.9	8182
Dyna-Gro Seed	Dynagraze II	SxS	0.8	4.8	83.9	2015	1522	6.0	29.4	83.6	1855	8751	6.8	10273
Dyna-Gro Seed	Super Sweet 10	SxS	1.4	8.8	83.4	2048	2867	5.1	30.2	82.9	1862	9059	6.5	11926
S&W Seed Co.	Sordan Headless	SxS	0.9	5.2	82.2	1922	1767	5.4	27.4	86.9	1677	5879	6.4	7646
Browning Seed, Inc.	Headless Wonder PPS	SxS	1.3	6.4	79.3	2186	2764	4.8	30.7	86.4	1865	7661	6.1	10426
Browning Seed, Inc.	Cadan 99B WMR	SxS	0.9	5.5	83.3	2104	1910	5.0	26.3	83.4	1976	8591	5.9	10501
Dyna-Gro Seed	First Graze	SxS	0.7	3.9	82.5	2082	1461	5.1	24.5	84.2	1842	7008	5.9	8469
Browning Seed, Inc.	Three Little Indians	SxS	0.9	5.4	83.3	2155	1925	4.8	23.9	84.2	1855	6903	5.7	8828
Browning Seed, Inc.	Sweet Sioux BMR	SxS	1.3	7.8	83.5	2096	2714	4.2	29.3	85.9	2111	8611	5.5	11325
Dyna-Gro Seed	Danny Boy II BMR	SxS	1.4	8.8	84.5	2107	2913	4.1	34.9	88.4	1983	8053	5.4	10966
Browning Seed, Inc.	Sweet Sioux WMR	SxS	0.8	5.1	84.2	2059	1654	4.5	27.8	83.8	2048	8956	5.3	10610
S&W Seed Co.	SP 4555	SxS	0.7	3.9	82.3	2183	1523	4.3	29.9	86.2	1979	7999	4.9	9522
S&W Seed Co.	SP 7106 BMR	SxS	0.6	3.3	82.7	2095	1149	4.3	25.9	86.3	1843	6376	4.9	7524
S&W Seed Co.	SP 4105	SxS	0.8	4.6	82.0	2060	1719	4.0	26.8	86.8	1919	6672	4.8	8391
Dyna-Gro Seed	Fullgraze II	SxS	0.7	4.3	84.4	2001	1363	3.9	24.3	85.9	2006	6851	4.6	8214
Dyna-Gro Seed	Fullgraze II BMR	SxS	0.9	5.5	83.3	2244	2010	3.6	26.0	87.0	2053	6745	4.5	8755
	Trial Mean		0.9	5.5	83.0	2080	1935	4.7	27.8	85.5	1911	7537	5.6	9472
	LSD		NS	NS	NS	175	NS	NS	NS	1.2	202	NS	NS	NS
	CV		54.5	55.5	2.0	5.1	53.9	19.3	18.1	0.9	6.3	17.6	20.8	21.1
	F Test		0.6694	0.5963	0.1331	0.0438	0.5808	0.0580	0.5021	<0.0001	0.0051	0.0750	0.2520	0.1853

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

Table 15C. New Mexico 2020 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	Ash	TDN	NE _i	CP	NDF	48hr	Ash	TDN	NE _i			
			%	%	%	%	%	Mcal/lb				%	%	%	%	%	Mcal/lb
S&W Seed Co.	Sordan 79	SxS	10.7	62.0	58.0	11.7	54.3	0.490	12.7	65.6	53.0	11.5	50.3	0.461			
Dyna-Gro Seed	Dynagraze II	SxS	12.4	61.1	58.3	11.9	55.3	0.500	12.6	64.0	53.7	10.5	52.3	0.483			
Dyna-Gro Seed	Super Sweet 10	SxS	12.7	61.4	58.7	11.6	55.8	0.510	13.4	62.8	53.3	10.9	52.3	0.485			
S&W Seed Co.	Sordan Headless	SxS	11.9	61.3	57.0	12.6	53.9	0.490	12.9	64.9	54.7	13.1	50.3	0.455			
Browning Seed, Inc.	Headless Wonder PP:	SxS	13.7	57.0	61.7	12.3	58.0	0.527	13.5	62.8	56.3	12.4	53.0	0.482			
Browning Seed, Inc.	Cadan 99B WMR	SxS	13.4	59.8	60.0	12.0	56.7	0.517	14.0	61.2	55.7	11.2	54.3	0.500			
Dyna-Gro Seed	First Graze	SxS	11.9	61.2	59.0	11.3	56.3	0.513	13.8	62.8	54.7	11.9	52.4	0.480			
Browning Seed, Inc.	Three Little Indians	SxS	12.2	59.1	62.7	12.2	57.9	0.523	13.4	63.9	55.3	11.5	52.7	0.482			
Browning Seed, Inc.	Sweet Sioux BMR	SxS	12.3	60.0	60.7	11.9	56.8	0.517	13.7	59.8	60.7	12.0	57.0	0.516			
Dyna-Gro Seed	Danny Boy II BMR	SxS	12.8	59.2	62.7	13.4	57.3	0.513	13.0	62.2	62.0	13.3	55.7	0.495			
Browning Seed, Inc.	Sweet Sioux WMR	SxS	13.3	60.5	59.0	12.0	56.0	0.507	14.6	60.5	56.3	10.9	55.3	0.510			
S&W Seed Co.	SP 4555	SxS	11.5	58.6	63.0	11.5	58.3	0.523	14.1	60.5	59.3	12.9	55.1	0.497			
S&W Seed Co.	SP 7106 BMR	SxS	13.7	58.2	62.7	14.2	57.1	0.513	14.1	61.6	57.7	13.8	53.0	0.478			
S&W Seed Co.	SP 4105	SxS	13.1	58.5	61.0	13.8	56.4	0.507	13.8	62.2	59.7	13.5	54.4	0.487			
Dyna-Gro Seed	Fullgraze II	SxS	9.4	62.8	59.7	11.7	55.4	0.503	12.8	63.6	58.3	11.0	55.2	0.502			
Dyna-Gro Seed	Fullgraze II BMR	SxS	12.1	59.3	63.7	11.6	59.2	0.533	12.9	63.0	61.0	11.8	56.4	0.507			
Trial Mean			12.3	60.0	60.5	12.2	56.5	0.512	13.5	62.6	57.0	12.0	53.7	0.489			
LSD			2.2	2.9	3.4	1.2	2.7	0.026	1.0	2.4	2.9	1.0	3.1	0.029			
CV			9.6	2.9	3.4	6.1	2.9	3.0	4.6	2.3	3.0	5.1	3.4	3.5			
F Test			0.0278	0.0221	0.0050	0.0006	0.0230	0.0774	0.0078	0.0009	<0.0001	<0.0001	0.0015	0.0075			

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

**Table 16A. New Mexico 2020 Irrigated Forage Sorghum & Sorghum x Sudan Performance Test (Hay) - Rex E. Kirksey
Agricultural Science Center at Tucumcari**

Investigators: L.M. Lauriault, G. Martinez, J. Box, P. Cooksey, J. Jennings, and S. Jennings

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: 14-May Harvest Dates: 22-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 style="text-align: center;">lb/a</td> <td style="text-align: center;">carryover</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">60 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> <tr> <td>S</td> <td style="text-align: center;">10.8 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> </tbody> </table> Pesticides (herbicides and insecticides): Atrazine 2 pt/A 18-May Brawl 16 fl oz/A 18-May Detonate 8 fl oz/A 28-Jun		Rate	Date	Fertilizer:			Nitrogen	lb/a	carryover	Nitrogen	60 lb/a	1-Jul	S	10.8 lb/a	1-Jul	<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;">41.3</td><td style="text-align: center;">0.92</td><td style="text-align: center;">0.00</td></tr> <tr><td>February</td><td style="text-align: center;">42.3</td><td style="text-align: center;">0.63</td><td style="text-align: center;">0.00</td></tr> <tr><td>March</td><td style="text-align: center;">47.4</td><td style="text-align: center;">0.82</td><td style="text-align: center;">0.00</td></tr> <tr><td>April</td><td style="text-align: center;">57.7</td><td style="text-align: center;">0.12</td><td style="text-align: center;">1.25</td></tr> <tr><td>May</td><td style="text-align: center;">63.2</td><td style="text-align: center;">0.54</td><td style="text-align: center;">4.25</td></tr> <tr><td>June</td><td style="text-align: center;">75.0</td><td style="text-align: center;">0.40</td><td style="text-align: center;">7.13</td></tr> <tr><td>July</td><td style="text-align: center;">82.0</td><td style="text-align: center;">2.29</td><td style="text-align: center;">4.33</td></tr> <tr><td>August</td><td style="text-align: center;">81.7</td><td style="text-align: center;">0.79</td><td style="text-align: center;">4.00</td></tr> <tr><td>September</td><td style="text-align: center;">77.0</td><td style="text-align: center;">0.55</td><td style="text-align: center;">1.00</td></tr> <tr><td>October</td><td style="text-align: center;">54.2</td><td style="text-align: center;">1.23</td><td style="text-align: center;">0.00</td></tr> <tr><td>November</td><td style="text-align: center;">45.3</td><td style="text-align: center;">0.54</td><td style="text-align: center;">0.00</td></tr> <tr><td>December</td><td style="text-align: center;">42.2</td><td style="text-align: center;">0.12</td><td style="text-align: center;">0.00</td></tr> </tbody> </table> Seasonal Precipitation 5.8 in. Total Irrigation 20.7 in. Date of Last Spring Frost: 17-Apr Date of First Fall Frost: 24-Oct Frost Free Period: 190 days		Average Temp. °F	Precip. in.	Irrigation in.	January	41.3	0.92	0.00	February	42.3	0.63	0.00	March	47.4	0.82	0.00	April	57.7	0.12	1.25	May	63.2	0.54	4.25	June	75.0	0.40	7.13	July	82.0	2.29	4.33	August	81.7	0.79	4.00	September	77.0	0.55	1.00	October	54.2	1.23	0.00	November	45.3	0.54	0.00	December	42.2	0.12	0.00
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Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 8 Row Spacing: 6 in. Seeding Rate: 25 lb/ac																																																																					

Table 16B. New Mexico 2020 Irrigated Forage Sorghum & Sorghum x Sudan Performance Test (Hay) - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	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	
Dyna-Gro Seed	Fullgraze II	SxS	4.6	8.3	56.0	6.8	67.6	58.0	0.2	4.3	62.7	0.644	3653	16849
Browning Seed, Inc.	Maxi Pearl	PM	4.3	8.1	53.0	9.7	70.8	54.3	0.1	6.7	60.4	0.618	3569	15294
Browning Seed, Inc.	Cadan 99B WMR	SxS	3.8	7.5	51.8	6.9	63.9	55.3	2.4	4.3	63.2	0.650	3772	14471
Dyna-Gro Seed	Dynagraze II	SxS	3.5	7.1	49.3	7.3	65.0	55.7	2.1	3.9	62.8	0.645	3763	13057
Browning Seed, Inc.	Headless Wonder PPS	SxS	3.5	7.5	48.5	9.0	66.4	57.8	0.1	5.6	62.8	0.645	3651	12812
Dyna-Gro Seed	Fullgraze II BMR	SxS	3.3	7.4	45.7	7.8	64.4	60.0	0.7	4.4	63.9	0.657	3708	12117
Browning Seed, Inc.	Tif Leaf 3	PM	3.2	5.8	56.0	11.6	68.0	58.5	0.0	7.2	62.7	0.644	3497	11248
Dyna-Gro Seed	First Graze	SxS	3.1	5.9	52.1	7.7	63.8	55.8	2.2	4.4	63.6	0.653	3744	11521
Dyna-Gro Seed	Super Sweet 10	SxS	3.0	6.1	50.7	7.5	66.3	56.3	1.0	4.0	62.9	0.646	3705	11161
Browning Seed, Inc.	Sweet Sioux BMR	SxS	3.0	6.4	46.6	7.8	62.6	60.0	2.2	4.7	64.5	0.664	3713	11035
Browning Seed, Inc.	Three Little Indians	SxS	3.0	6.2	48.9	6.9	63.1	57.3	2.4	4.5	64.3	0.661	3718	11101
Dyna-Gro Seed	Danny Boy II BMR	SxS	2.6	7.3	36.2	9.1	62.6	68.3	0.0	7.3	64.4	0.662	3648	9606
Browning Seed, Inc.	Sweet Sioux WMR	SxS	2.1	4.2	50.8	7.3	62.7	57.7	2.4	4.6	64.4	0.663	3719	7815
Trial Mean			3.3	6.8	49.9	8.1	65.2	58.0	1.2	5.0	63.3	0.650	3682	12220
LSD P < 0.05			1.0	NS	8.4	1.5	3.7	5.4	1.3	1.3	NS	NS	107	3813
CV			21.5	21.2	11.8	13.0	3.9	6.5	77.0	17.7	25.0	2.7	2.0	21.7
F Test			0.0108	0.3265	0.0183	0.0001	0.0045	0.0124	0.0002	0.0001	0.1459	0.1457	0.0009	0.0149

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

Table 17A. New Mexico 2020 Irrigated Grain Sorghum Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Investigators: L.M. Lauriault, G. Martinez, J. Box, P. Cooksey, S. Jennings, J. Jennings

Test Description

Location:	Management Practices:	Growing Conditions:																																																																												
<p>County/Area: Quay Longitude: -103.68 Latitude: 35.20 Elevation: 4086 ft. Soil Name: Redona Soil Texture: Fine sandy loam Soil Depth: >60 in.</p> <p>Test Design: Replications: 4 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in.</p> <p>Seeding Rate: 60,000 seeds/ac</p>	<p>Previous Crop: Winter rye Planting Date: 14-May Harvest Dates: 29-Sep Hand Harvest 21-Dec Threshed</p> <p><u>Production Inputs</u></p> <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 style="text-align: center;">lb/a</td> <td style="text-align: center;">carryover</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">60 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> <tr> <td>S</td> <td style="text-align: center;">10.8 lb/a</td> <td style="text-align: center;">1-Jul</td> </tr> </tbody> </table> <p>Pesticides (herbicides and insecticides):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Atrazine</td> <td style="text-align: center;">2 pt/A</td> <td style="text-align: center;">18-May</td> </tr> <tr> <td>Brawl</td> <td style="text-align: center;">16 fl oz/A</td> <td style="text-align: center;">18-May</td> </tr> <tr> <td>Detonate</td> <td style="text-align: center;">8 fl oz/A</td> <td style="text-align: center;">28-Jun</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	lb/a	carryover	Nitrogen	60 lb/a	1-Jul	S	10.8 lb/a	1-Jul	Atrazine	2 pt/A	18-May	Brawl	16 fl oz/A	18-May	Detonate	8 fl oz/A	28-Jun	<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 style="text-align: center;">41.3</td><td style="text-align: center;">0.92</td><td style="text-align: center;">0.00</td></tr> <tr><td>February</td><td style="text-align: center;">42.3</td><td style="text-align: center;">0.63</td><td style="text-align: center;">0.00</td></tr> <tr><td>March</td><td style="text-align: center;">47.4</td><td style="text-align: center;">0.82</td><td style="text-align: center;">0.00</td></tr> <tr><td>April</td><td style="text-align: center;">57.7</td><td style="text-align: center;">0.12</td><td style="text-align: center;">1.25</td></tr> <tr><td>May</td><td style="text-align: center;">63.2</td><td style="text-align: center;">0.54</td><td style="text-align: center;">4.25</td></tr> <tr><td>June</td><td style="text-align: center;">75.0</td><td style="text-align: center;">0.40</td><td style="text-align: center;">7.13</td></tr> <tr><td>July</td><td style="text-align: center;">82.0</td><td style="text-align: center;">2.29</td><td style="text-align: center;">4.33</td></tr> <tr><td>August</td><td style="text-align: center;">81.7</td><td style="text-align: center;">0.79</td><td style="text-align: center;">4.00</td></tr> <tr><td>September</td><td style="text-align: center;">77.0</td><td style="text-align: center;">0.55</td><td style="text-align: center;">1.00</td></tr> <tr><td>October</td><td style="text-align: center;">54.2</td><td style="text-align: center;">1.23</td><td style="text-align: center;">0.00</td></tr> <tr><td>November</td><td style="text-align: center;">45.3</td><td style="text-align: center;">0.54</td><td style="text-align: center;">0.00</td></tr> <tr><td>December</td><td style="text-align: center;">42.2</td><td style="text-align: center;">0.12</td><td style="text-align: center;">0.00</td></tr> </tbody> </table> <p>Seasonal Precipitation 5.8 in. Total Irrigation 20.7 in.</p> <p>Date of Last Spring Frost: 17-Apr Date of First Fall Frost: 24-Oct Frost Free Period: 190 days</p>		Average Temp. °F	Precip. in.	Irrigation in.	January	41.3	0.92	0.00	February	42.3	0.63	0.00	March	47.4	0.82	0.00	April	57.7	0.12	1.25	May	63.2	0.54	4.25	June	75.0	0.40	7.13	July	82.0	2.29	4.33	August	81.7	0.79	4.00	September	77.0	0.55	1.00	October	54.2	1.23	0.00	November	45.3	0.54	0.00	December	42.2	0.12	0.00
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Table 17B. New Mexico 2020 Irrigated Grain Sorghum Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Adjusted Grain	Moisture	Test
		Yield†	at Threshing	Weight
		lb/a	%	lb/bu
Dyna-Gro Seed	GX18919	774	8.7	51.6
Dyna-Gro Seed	M57GB19	755	8.8	45.7
Dyna-Gro Seed	GX17912	646	8.7	37.2
Dyna-Gro Seed	M60GB88	577	9.0	42.7
Advanta Seeds	ADVG2275	565	9.1	43.3
Dyna-Gro Seed	M54GR24	446	9.0	42.1
Dyna-Gro Seed	M59GB94	441	8.9	41.6
Dyna-Gro Seed	GX20564	421	9.0	33.8
Dyna-Gro Seed	M57GC29	398	9.3	41.3
Advanta Seeds	ADVG2106	355	9.1	28.9
Dyna-Gro Seed	M62GB77	355	9.0	34.0
Dyna-Gro Seed	M59GB57	354	8.9	37.8
Dyna-Gro Seed	M69GR88	347	8.9	32.0
Advanta Seeds	ADVXG116IG	344	9.0	35.6
Advanta Seeds	ADVXG397	343	9.0	35.2
Dyna-Gro Seed	M74GB17	325	9.0	28.5
Advanta Seeds	ADVXG267	314	8.8	33.7
Advanta Seeds	ADVXG9127	309	9.2	33.3
Dyna-Gro Seed	M60GB31	274	9.2	30.1
Dyna-Gro Seed	GX19981	264	8.8	35.1
Advanta Seeds	AG1301	208	8.9	32.3
Dyna-Gro Seed	M71GR91	190	8.6	25.0
Dyna-Gro Seed	M72GB71	140	8.9	25.0
Trial Mean		398	8.9	35.9
LSD (P > 0.05)		292	NS	11.5
CV		52.0	3.9	22.7
F Test		0.0016	0.5142	0.0012

† Yields represent grain collected from a second flush of tillers. Initial grain development was drastically hindered due to irrigation supply issues that coincided with extreme heat and drought during heading.

Appendix A

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

New Mexico 2020 Grain Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Dyna-Gro Seed	D52DC82	112
P.O. Box 38, 103 E. Mill Rd	D53VC33	113
Artesia, NM 88210	D54SS74	114
Shawn Carter	D54VC14	114
318-282-9804	D54VC34	114
	D55VC80	114
	D57VC17	117
	D57TC29	117
	D58VC65	118
	D58VC90	118
	D40VC41	100
	D43VC81	103
	D44SS54	104
	D45TC55	105
	D48QV22	108
	D48VC76	108
	D50VC30	110
	D50VC78	110
	D51VC41	110
LG Seeds	LG67C45STX	117
1122 E. 169th St.	LG66C32VT2PRO	116
Westfield, IN 46074	LG66C44VT2PRO	116
Chris Sheppard		
254-313-8720		

New Mexico 2020 Forage Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
BH Genetics	BH 8732VT2P	116
5933 FM 1157	BH 8780VT2P	117
Ganado, TX 77962	BH 8907VT2P	118
Travis Janak	BH 8400PCE	114
361-771-2755	BH 8555DG2P	115
	BH 8690VIP3111	116
	BH 8712VIP3110	117
	BH 8704VIP3110	117
Dyna-Gro Seed	D45TC55	105
P.O. Box 38, 103 E. Mill Rd	D52DC82	112
Artesia, NM 88210	D53VC33	113
Shawn Carter	D54VC14	114
318-282-9804	D55VC80	115
	D57TC29	117
	D57VC17	117
	D58QC72	118
	D58VC65	118
	D58VC90	118
Dekalb/Bayer	DKC70-64RIB	120
23751 Hix Rd	DKC69-16RIB	119
Canyon, TX 79015	DKC64-44RIB	114
Kyle Lawles		
806-445-4716		
Integra / Wilbur-Ellis	6588 VT2P	115
2219 229th PL	6621 DGVT2P	116
Ames, IA 50014	9678 VT2P	117
Aaron Petersen	6709 VT2P	117
402-290-0373	6720 SS	117
	6880 VT2P	118
	6801 GT/CB/LL	118

New Mexico 2020 Forage Corn Hybrid Performance Test, Con't.

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
LG Seeds	LG66C28-3110	116
1122 E. 169th St. Westfield, IN 46074 Chris Sheppard 254-313-8720	LG68C59-3330	118
Masters Choice	MCT6552	115
305 W. Vienna St Anna, IL 62906 Kyle Vosburgh 618-833-6552	MCT6703	117

New Mexico 2020 Grain Sorghum Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Maturity Group*
Advanta Seeds	AG1301	
8600 Freeport Pkwy, Suite 220	ADV XG9127	
Irving, TX 75063	ADV G2106	
Zachary Eder	ADV XG267	
979-332-5138	ADV XG397	
	ADV G2275	
	ADV XG1161G	
Dyna-Gro Seed	M54GR24	VE
P.O. Box 38, 103 E. Mill Rd	GX18919	E
Artesia, NM 88210	M57GC29	E
Shawn Carter	M57GB19	E
318-282-9804	M59GB57	ME
	GX17912	ME
	M59GB94	ME
	M60GB31	M
	M60GB88	M
	GX20564	M
	M62GB77	M
	M69GR88	ML
	GX19981	ML
	M71GR91	ML
	M72GB71	ML
	M74GB17	ML
LG Seeds	2730B	ME
1122 E. 169th St.	3180B	M
Westfield, IN 46074	1510C	E
Chris Sheppard	2620C	ME
254-313-8720		
S&W Seed Co.	SP 68M57	M
2101 Ken Pratt Blvd.	SP 25C10	E
Longmont, CO 80501	SP 31A15	E
Scott Staggenborg	SP 33S40	ME
720-506-9191	SP 43M80	ME

*E=early, ME=medium early, ML=medium late, L=late

New Mexico 2020 Forage Sorghum/SxS Hybrid Performance Test (Single Cut Silage)

Company/Brand Name	Hybrid/Variety Name	Forage Type*	Maturity Group**	Brown Midrib
Browning Seed, Inc. 3101 S. I-27 Plainview, TX 79072 John Browning 806-292-6384	Browning 300	FS		N
	Silage Master	FS	MF	N
Dyna-Gro Seed P.O. Box 38, 103 E. Mill Rd Artesia, NM 88210 Shawn Carter 318-282-9804	F70FS91 BMR	FS	E	Y
	F71FS72 BMR	FS	E	Y
	F72FS05 (SCA)	FS	ME	N
	Super Sile 30	FS	ME	N
	F72FS25 BMR	FS	M	Y
	F74FS23 BMR	FS	M	Y
	Super Sile 20	FS	MF	N
	TopTon	FS	F	N
	Danny Boy II BMR	SxS	PS	Y
	First Graze	SxS	ME	N
	Super Sweet 10	SxS	ME	N
	Dynagraze II	SxS	ME	N
Fullgraze II	SxS	MF	N	
Fullgraze II BMR	SxS	MF	Y	
S&W Seed Co. 2101 Ken Pratt Blvd. Longmont, CO 80501 Scott Staggenborg 720-506-9191	NK300	FS	ME	N
	SS405	FS	F	N
	SP 3904 BD BMR	FS	MF	Y
	SP 3905 BD BMR	FS	ME	Y
	SP 1880	FS	F	N
	SP 1615	FS	F	N

*FS = Forage Sorghum, SxS = Sorghum x Sudan

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

New Mexico 2020 Forage Sorghum/SxS Hybrid Performance Test (Multi Cut Hay)

Company/Brand Name	Hybrid/Variety Name	Forage Type*	Maturity Group**	Brown Midrib
Browning Seed, Inc. 3101 S. I-27 Plainview, TX 79072 John Browning 806-292-6384	Cadan 99B WMR	SxS		N
	Three Little Indians	SxS		N
	Sweet Sioux BMR	SxS		Y
	Sweet Sioux WMR	SxS		N
	Headless Wonder PPS	SxS		N
Dyna-Gro Seed P.O. Box 38, 103 E. Mill Rd Artesia, NM 88210 Shawn Carter 318-282-9804	Danny Boy II BMR	SxS	PS	Y
	First Graze	SxS	ME	N
	Super Sweet 10	SxS	ME	N
	Dynagraze II	SxS	ME	N
	Fullgraze II	SxS	ML	N
	Fullgraze II BMR	SxS	ML	Y
S&W Seed Co. 2101 Ken Pratt Blvd. Longmont, CO 80501 Scott Staggenborg 720-506-9191	SP 4105	SxS		Y
	SP 4555	SxS		Y
	Sordan 79	SxS		N
	SP 7106 BMR	SxS		Y
	Sordan Headless	SxS		N

*FS = Forage Sorghum, SxS = Sorghum x Sudan

**E=early, ME=medium early, ML=medium late, L=late, 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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