New Mexico
2018 Corn and Sorghum
Performance Tests

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

New Mexico
2018
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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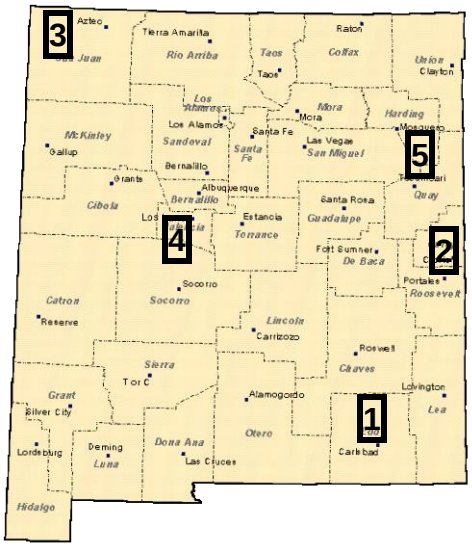
INTRODUCTION

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 2018 (Figure 1). This report contains information from all Agricultural Science Center corn and sorghum tests; however, it is possible that not all locations contain every test listed above.

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

Figure 1. Corn and sorghum testing locations.



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

Figure 2. Climate zones in New Mexico.

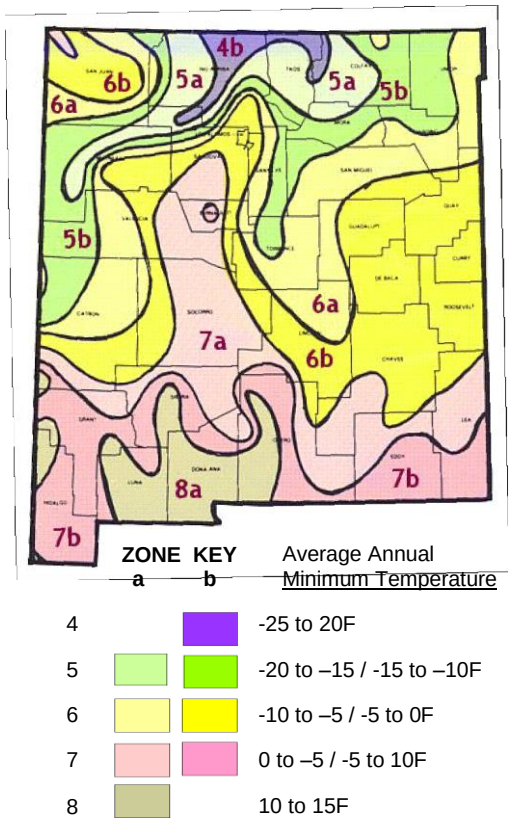


Table 1. Historical average monthly precipitation (inches) and temperatures (^{o}F) for cooperating agricultural science centers.					
	Artesia	Clovis	Farmington	Los Lunas	Tucumcari
	Precipitation (inches)				
January	0.39	0.36	0.56	0.38	0.37
February	0.41	0.40	0.54	0.41	0.46
March	0.41	0.69	0.65	0.47	0.74
April	0.62	0.78	0.63	0.47	1.09
May	1.07	1.99	0.58	0.46	1.97
June	1.38	2.38	0.24	0.56	1.87
July	1.78	2.84	0.87	1.37	2.60
August	1.69	3.07	1.09	1.67	2.69
September	1.82	1.94	1.07	1.17	1.55
October	1.18	1.71	0.87	1.06	1.29
November	0.54	0.51	0.69	0.46	0.64
December	0.50	0.46	0.52	0.52	0.59
Total	11.64	17.10	8.32	8.95	15.90
	Average Temperature (^{o}F)				
January	40.5	37.6	30.4	35.5	38.5
February	45.2	41.2	36.3	40.2	42.3
March	52.0	48.0	44.0	47.2	49.4
April	60.5	56.1	51.1	54.8	57.7
May	69.2	64.6	60.1	63.4	66.3
June	77.7	74.0	70.6	72.7	75.8
July	79.8	76.5	75.8	77.0	79.2
August	78.4	74.8	73.4	74.8	77.4
September	71.7	68.5	66.1	67.4	70.8
October	61.0	58.2	54.0	55.9	59.7
November	48.8	46.4	41.1	43.6	47.6
December	40.8	38.8	31.3	35.1	39.3
Average	60.4	57.0	52.8	55.7	58.7
Source: Western Region Climate Center: http//www.wrcc.dri.edu/summary/climsmnm.html					

TEST LOCATIONS

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

A list of seed companies that participated in the 2018 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 2019 Corn and Sorghum Performance Tests will be mailed to seed companies in February 2019. Additional 2019 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 2018 corn and sorghum variety tests are shown in Tables 2-12 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.

All corn and grain and forage sorghum tests at Tucumcari were planted and emerged; however, due to irrigation supply problems and subsequent drought stress, crops were not harvestable in 2018.

The irrigated and dryland forage sorghum tests at Clovis were harvested and fresh weights were obtained. However, a drying oven fire consumed all the subsamples used for estimating dry matter and nutritive value parameters. Hence, no DM yield or quality results are reported for these tests.

Table 2A. New Mexico 2018 Grain Corn Performance Test - Agricultural Science Center at Clovis

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

Test Description

Location:

County/Area:	Curry
Longitude:	-103.22
Latitude:	34.60
Elevation:	4435 ft.
Soil Name:	Olton
Soil Texture:	clay loam
Soil Depth:	>60 in.

Test Design:

Replications:	3
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	27,000 seed/a

Management Practices:

Previous Crop:	fallow
Planting Date:	17-May
Harvest Date:	5-Nov

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	12	lb/a	carryover
Nitrogen	18	lb/a	16-Feb
P_2O_5	60	lb/a	16-Feb
Zn	3	qt/ac	16-Feb
Nitrogen	122	lb/ac	pre plant
S	22	lb/ac	pre plant
Nitrogen	30	lb/ac	at plant
S	5.5	lb/ac	at plant
Herbicides:			
Atrazine	1	pt/a	pre plant
Balance Flexx	3	oz/ac	pre plant
Diflexx	5	oz/ac	pre plant
Glyphosate	40	oz/ac	pre plant
Brawl	1.3	pt/ac	at plant
Diflexx	8	oz/ac	20-Jun
Brawl	16	oz/ac	20-Jun
Insecticides:			
Onager	16	oz/ac	20-Jun
Prevathon	20	oz/ac	1-Aug
Oberon	8	oz/ac	1-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	35.2		
February	40.3		
March	49.3		
April	52.8		
May 17-31	68.2	1.60	1.40
June	76.1	1.71	3.20
July	76.5	3.05	5.30
August	74.5	3.94	4.40
September	68.5	1.64	1.70
October	56.0	3.99	0.00
November	45.0	0.09	0.00
December			

Seasonal Precipitation:	15.9	in.
Total Irrigation:	16.0	in.
Date of Last Spring Frost:	16-Apr	
Date of First Fall Frost:	15-Oct	
Frost Free Period:	182	days

Table 2B. New Mexico 2018 Grain Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield	Moisture at Harvest	Test Weight	Plant Height	Ear Height	Silk Date
		bu/a	%	lb/bu	in	in	
Golden Acres Genetics/LG Seeds	LG 66C32 STX	289.6	18.33	60.60	101.0	42.1	23-Jul
Golden Harvest Seeds	G18D87-3111	283.9	18.56	59.70	109.7	48.4	20-Jul
Dyna-Gro Seed	D57VC51	281.8	18.06	56.43	108.3	46.6	21-Jul
Golden Acres Genetics/LG Seeds	ES 7667 VT2 PRO	277.8	18.66	59.30	102.7	44.6	21-Jul
Golden Harvest Seeds	G11B63-3010A	271.5	16.83	58.40	103.0	43.0	23-Jul
Dyna-Gro Seed	D58VC65	270.4	16.93	60.03	100.0	43.0	21-Jul
Golden Harvest Seeds	G13Z50-3110	269.0	16.20	58.73	95.0	44.1	25-Jul
Dyna-Gro Seed	D54VC14	265.3	16.56	60.00	94.7	42.8	24-Jul
Dyna-Gro Seed	D55VC45	261.8	16.30	60.46	94.3	42.4	25-Jul
Dyna-Gro Seed	D54DC94	261.7	17.13	57.80	100.3	45.5	24-Jul
Dyna-Gro Seed	D52VC63	261.6	15.36	59.80	100.3	47.5	21-Jul
Golden Harvest Seeds	G13T43-3010	249.0	17.46	55.13	97.7	41.3	21-Jul
Dyna-Gro Seed	D52VC91	240.5	16.96	59.56	97.0	43.8	24-Jul
	Trial Mean	268.0	17.2	58.9	100.3	44.3	22-Jul
	LSD (P < 0.05)	27.9	1.2	NS	6.0	3.7	3.1
	CV	6.2	4.0	4.5	3.5	5.0	0.9
	F Test	0.0263	<0.0001	0.3956	<0.0001	<0.0001	0.0168

Table 3A. New Mexico 2018 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

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

Test Description

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.

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

Management Practices:

Previous Crop:	2017 w. wheat, 2016 fallow, 2015 w. wheat, 2014 fallow, 2013 fallow, 2012 potatoes
Planting Date:	22-May
Harvest Date:	19-Dec

Production Inputs

	Rate		Date
Fertilizer:			
Dry Nitrogen	20.0	lb/a	16-May
Nitrogen	17.0	lb/a	31-May
Nitrogen	17.0	lb/a	5-Jun
Nitrogen	17.0	lb/a	12-Jun
Nitrogen	17.0	lb/a	19-Jun
Nitrogen	17.0	lb/a	26-Jun
Nitrogen	17.0	lb/a	3-Jul
Nitrogen	17.0	lb/a	10-Jul
Nitrogen	17.0	lb/a	17-Jul
Nitrogen	17.0	lb/a	24-Jul
Nitrogen	17.0	lb/a	31-Jul
Nitrogen	17.0	lb/a	7-Aug
Total Nitrogen	207.0	lb/a	
$NH_4H_2PO_4$	192	lb/a	16-May
KCl	150	lb/a	16-May
$ZnSO_4$	14	lb/a	16-May
Herbicides:			
Atrazine 4L	1	qt/a	12-Jun
Super Spread MSO	1	qt/a	12-Jun
Status	10	oz/a	12-Jun

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January			
February			
March			
April			
May	63.6	0.32	2.2
June	73.6	0.80	6.7
July	79.6	0.60	12.2
August	76.1	0.21	10.4
September	69.2	0.14	7.7
October	53.1	0.81	3.8
November			
December			

Seasonal Precipitation	2.9 in.
Total Irrigation	43.0 in.
Date of Last Spring Frost:	19-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	179 days

Table 3B. New Mexico 2018 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	Plant Population
		bu/a	%	lb/bu	in	in		
Dyna-Gro Seed	D43VC81	236.1	14.0	59.5	104	46	2-Aug	31,363
Dyna-Gro Seed	D47SS29	227.6	13.9	59.9	99	43	3-Aug	32,126
Dyna-Gro Seed	D41SS71	219.4	14.1	59.1	96	38	2-Aug	33,106
Golden Harvest Seeds	G05K08-3010A	214.9	14.6	59.0	94	40	2-Aug	31,363
Golden Harvest Seeds	G06Q68-3220	212.8	15.0	57.9	97	39	2-Aug	30,383
Dyna-Gro Seed	D49VC70	207.6	15.3	59.6	94	37	2-Aug	28,314
Dyna-Gro Seed	D44VC36	207.0	14.5	60.1	97	40	2-Aug	32,234
Dyna-Gro Seed	D50VC30	197.6	14.3	59.7	101	44	5-Aug	29,948
Golden Harvest Seeds	G97N86-3110	187.2	13.7	59.6	98	38	2-Aug	31,472
Dyna-Gro Seed	D45SS65	183.8	14.2	59.8	99	41	2-Aug	29,730
Golden Harvest Seeds	G00H12-3010	178.1	14.5	59.9	94	37	2-Aug	29,730
Golden Harvest Seeds	G95D32-3220	167.8	14.5	60.7	96	40	2-Aug	28,532
Golden Harvest Seeds	G03C84-3120	146.7	14.5	59.8	96	39	2-Aug	30,710
	Trial Mean	199.0	14.4	59.6	97	40	2-Aug	30,693
	LSD P < 0.05	NS	0.35	0.58	NS	NS		NS
	CV	23.9	1.7	0.7	5.4	14.2		10.7
	F Test	0.3643	<0.0001	<0.0001	0.2923	0.5237		0.6811

Table 4A. New Mexico 2018 Full Season Grain Corn Performance Test - Agricultural Science Center at Farmington

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

Test Description

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.

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

Management Practices:

Previous Crop:	2017 w. wheat, 2016 fallow, 2015 w. wheat, 2014 fallow, 2013 fallow, 2012 potatoes
Planting Date:	21-May
Harvest Date:	17-18-Dec

Production Inputs

	Rate		Date
Fertilizer:			
Dry Nitrogen	20.0	lb/a	16-May
Nitrogen	17.0	lb/a	31-May
Nitrogen	17.0	lb/a	5-Jun
Nitrogen	17.0	lb/a	12-Jun
Nitrogen	17.0	lb/a	19-Jun
Nitrogen	17.0	lb/a	26-Jun
Nitrogen	17.0	lb/a	3-Jul
Nitrogen	17.0	lb/a	10-Jul
Nitrogen	17.0	lb/a	17-Jul
Nitrogen	17.0	lb/a	24-Jul
Nitrogen	17.0	lb/a	31-Jul
Nitrogen	17.0	lb/a	7-Aug
Total Nitrogen	207.0	lb/a	
$NH_4H_2PO_4$	192	lb/a	16-May
KCl	150	lb/a	16-May
$ZnSO_4$	14	lb/a	16-May
Herbicides:			
Atrazine 4L	1	qt/a	12-Jun
Super Spread MSO	1	qt/a	12-Jun
Status	10	oz/a	12-Jun

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January			
February			
March			
April			
May	63.6	0.32	2.2
June	73.6	0.80	6.7
July	79.6	0.60	12.2
August	76.1	0.21	10.4
September	69.2	0.14	7.7
October	53.1	0.81	3.8
November			
December			

Seasonal Precipitation	2.9 in.
Total Irrigation	43.0 in.
Date of Last Spring Frost:	19-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	179 days

Table 4B. New Mexico 2018 Full 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	Plant Population
		bu/a	%	lb/bu	in	in		
Dyna-Gro Seed	D52VC15	224.1	15.1	58.3	97	40	2-Aug	29,948
Dyna-Gro Seed	D58VC65	199.4	17.8	57.5	95	37	5-Aug	27,443
Dyna-Gro Seed	D54DC94	186.7	17.0	56.1	109	44	6-Aug	25,918
Dyna-Gro Seed	D57VC51	178.9	20.7	54.3	100	43	6-Aug	27,878
Dyna-Gro Seed	D55VC45	177.8	15.9	58.6	100	43	6-Aug	30,056
Dyna-Gro Seed	D52VC63	165.5	15.8	57.3	99	39	5-Aug	31,581
Dyna-Gro Seed	D52VC91	163.4	17.6	57.8	98	40	6-Aug	31,472
Dyna-Gro Seed	D54VC14	157.4	16.9	58.2	95	40	5-Aug	27,116
	Trial Mean	181.7	17.1	57.2	99	41	5-Aug	28,927
	LSD P < 0.05	NS	1.73	1.92	7.31	NS		NS
	CV	30.1	7.0	2.3	5.1	9.4		12.1
	F Test	0.7970	<0.0001	0.0023	0.0202	0.2733		0.2737

Table 5A. New Mexico 2018 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez, and C. Hill

Test Description

Location:

County/Area:	Eddy
Longitude:	-104.22
Latitude:	32.45
Elevation:	3356 ft.
Soil Name:	Pima
Soil Texture:	silt loam
Soil Depth:	32 in.

Test Design:

Replications:	4
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	40 in.
Seeding Rate:	32,000 seed/a

Management Practices:

Previous Crop:	cotton
Planting Date:	16-May
Harvest Date:	24-Aug

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	20 lb/a	25-Apr
Nitrogen	225 lb/a	23-Jul
P_2O_5	96 lb/a	25-Apr
Herbicides:		
Rifle	16 oz/a	13-Jun
Insecticides:		
None		

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	37.5	0.10	
February	46.1	0.31	
March	54.0	0.03	
April	60.5	0.00	1.55
May	73.0	1.89	4.12
June	80.1	1.67	8.74
July	80.7	1.72	9.93
August	79.5	1.38	3.61
September	71.7	1.92	
October	58.9	3.01	
November	46.0	0.23	
December			

Seasonal Precipitation	7.00 in.
Total Irrigation	27.94 in.

Date of Last Spring Frost:	21-Mar
Date of First Fall Frost:	12-Nov
Frost Free Period:	236 days

Table 5B. New Mexico 2018 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage	Green Forage	Moisture at Harvest	CP	NDF	NDFD 30hr	Ash	Starch	NE_l	Milk/ Ton	Milk/ Acre
		t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Golden Acres Genetics/LG Seeds	LG68C88 VT2PRO	7.8	22.5	65.2	9.4	41.6	48.5	4.2	19.2	0.437	2419	18780
Golden Acres Genetics/LG Seeds	ES7667 VT2PRO	7.3	21.4	65.8	10.2	41.7	58.5	4.6	14.7	0.433	2392	17590
Dyna-Gro Seed	D57VC17	7.3	21.2	65.6	9.5	41.0	49.3	4.1	19.2	0.452	2439	17794
Dyna-Gro Seed	D55VP77 VT2P	7.2	21.1	65.7	9.8	40.6	51.5	3.9	19.4	0.447	2499	18115
Dyna-Gro Seed	D58SS65	7.0	19.3	63.6	10.0	40.5	52.5	4.2	18.3	0.441	2481	17346
Dyna-Gro Seed	D55SS45	7.0	21.3	67.3	9.8	42.4	54.5	4.4	14.9	0.425	2311	16221
Golden Acres Genetics/LG Seeds	LG68C22 VT2PRO	6.8	18.7	63.9	10.2	40.4	52.8	4.3	18.9	0.448	2517	17019
Dyna-Gro Seed	D58RR70 RR	6.4	17.8	63.7	9.7	39.5	50.3	4.3	19.7	0.438	2441	15610
	Trial Mean	7.1	20.4	65.1	9.8	41.0	52.2	4.2	18.0	0.440	2437	17309
	LSD (P < 0.05)	NS	NS	NS	NS	NS	4.3	NS	3.8	NS	122	NS
	CV	17.9	15.3	3.9	5.3	4.8	5.6	11.8	14.3	2.9	3.4	18.8
	F Test	0.8640	0.4146	0.4160	0.3016	0.5590	0.0022	0.6299	0.0493	0.1274	0.0479	0.9182

Table 6A. New Mexico 2018 Forage Corn Performance Test - Agricultural Science Center at Clovis

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

Test Description

Location:

County/Area:	Curry
Longitude:	-103.22
Latitude:	34.60
Elevation:	4435 ft.
Soil Name:	Olton
Soil Texture:	clay loam
Soil Depth:	>60 in.

Test Design:

Replications:	3
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	27000 seed/a

Management Practices:

Previous Crop:	fallow
Planting Date:	17-May
Harvest Date:	6-Sep

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	12	lb/a	carryover
Nitrogen	18	lb/a	16-Feb
P_2O_5	60	lb/a	16-Feb
Zn	3	qt/ac	16-Feb
Nitrogen	122	lb/ac	pre plant
S	22	lb/ac	pre plant
Nitrogen	30	lb/ac	at plant
S	5.5	lb/ac	at plant
Herbicides:			
Atrazine	1	pt/a	pre plant
Balance Flexx	3	oz/ac	pre plant
Diflexx	5	oz/ac	pre plant
Glyphosate	40	oz/ac	pre plant
Brawl	1.3	pt/ac	at plant
Diflexx	8	oz/ac	20-Jun
Brawl	16	oz/ac	20-Jun
Insecticides:			
Onager	16	oz/ac	20-Jun
Prevathon	20	oz/ac	1-Aug
Oberon	8	oz/ac	1-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	35.2		
February	40.3		
March	49.3		
April	52.8		
May 17-31	68.2	1.60	1.40
June	76.1	1.71	3.20
July	76.5	3.05	5.30
August	74.5	3.94	4.40
September 1-6	72.4	0.72	0.00
October	56.0		
November			
December			

Seasonal Precipitation:	11.0 in.
Total Irrigation:	14.3 in.
Date of Last Spring Frost:	16-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	182 days

Table 6B. New Mexico 2018 Forage Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage	Green Forage	Moisture at Harvest	CP	NDF	NDFD 48hr	Starch	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
		t/a	t/a	%	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Wilbur-Ellis Company	INT6709 VT3PRO	10.4	29.8	64.9	9.1	42.5	59.7	31.4	4.1	66.2	0.681	3181	33204
Wilbur-Ellis Company	INT9678 VT2PRO	9.5	26.9	64.5	9.4	42.4	56.4	31.3	3.8	65.5	0.673	3102	29575
Golden Harvest Seeds	G18D87-3111	9.5	27.8	65.7	8.9	42.1	62.4	31.4	4.1	67.2	0.693	3277	31213
Wilbur-Ellis Company	INT STP6498R	9.4	29.0	67.8	9.1	44.5	62.2	28.5	4.1	66.8	0.688	3246	30351
Dyna-Gro Seed	D58RR70	9.3	27.0	65.4	9.2	42.9	61.3	31.2	4.1	66.6	0.685	3224	30045
Wilbur-Ellis Company	INT 6474 DGVT2PRIB	9.2	26.1	64.6	9.0	40.8	61.7	33.2	4.2	67.2	0.692	3267	30153
Golden Harvest Seeds	G14H66-3010A	9.2	26.0	64.5	8.9	40.8	61.7	32.7	4.0	67.4	0.695	3286	30337
Wilbur-Ellis Company	INT9684 VT2PRO	9.1	27.6	67.2	9.3	44.3	58.8	28.4	4.3	65.0	0.667	3085	28017
Dyna-Gro Seed	D58SS65	9.0	26.7	66.3	9.2	40.9	58.8	33.8	4.0	66.2	0.681	3172	28531
Golden Harvest Seeds	G18H82-3111	8.9	23.8	62.4	8.4	37.9	61.4	38.1	3.5	67.8	0.698	3306	29566
Wilbur-Ellis Company	CX618118-VT2PRIB	8.9	24.7	63.9	8.8	40.6	61.0	32.7	3.8	67.6	0.696	3291	29335
Blue River Organic Seed	70A47	8.8	25.7	65.6	9.5	39.9	59.6	34.8	4.6	66.1	0.679	3168	27972
Golden Harvest Seeds	NK1860-3111	8.8	23.7	62.8	9.0	37.3	64.4	35.2	4.2	69.0	0.712	3423	30172
Masters Choice	MCT6653	8.8	24.5	64.0	9.1	41.7	60.8	33.1	3.9	66.8	0.688	3235	28469
Dyna-Gro Seed	D55VC77	8.8	25.8	66.0	9.2	44.0	56.8	31.0	4.3	64.2	0.659	3011	26340
Wilbur-Ellis Company	CX801115 DGVT2PRO	8.8	25.2	65.3	8.9	39.6	60.1	35.0	4.3	66.5	0.684	3205	28040
Masters Choice	EXP 671T	8.7	23.9	63.5	8.6	41.7	61.6	32.4	4.0	66.8	0.688	3240	28286
Masters Choice	EXP 672T	8.7	24.7	65.0	8.7	41.4	61.3	33.1	4.3	66.7	0.687	3232	28052
Golden Acres Genetics/ LG Seeds	LG 68C88 VT2PRO	8.7	24.1	64.1	9.0	44.2	60.6	27.8	3.8	66.6	0.685	3214	27776
Blue River Organic Seed	66G25	8.6	24.5	64.8	9.0	42.5	61.9	31.3	4.2	67.0	0.689	3252	28107
Golden Harvest Seeds	G16K01-3111	8.6	25.7	66.4	8.4	41.9	60.4	32.9	3.9	66.6	0.685	3212	27779
Golden Acres Genetics/ LG Seeds	ES 7667 VT2PRO	8.5	24.4	65.2	9.1	42.1	61.1	31.6	4.1	67.0	0.689	3247	27572
Masters Choice	EXP 621T	8.4	24.2	65.1	8.6	41.9	60.8	32.7	4.4	66.4	0.683	3202	26928
Wilbur-Ellis Company	CX711118-3110	8.4	25.6	67.1	9.5	43.0	59.2	28.5	4.1	65.9	0.677	3150	26559
Wilbur-Ellis Company	CX801117 SS	8.4	23.1	63.6	8.8	40.2	59.5	33.9	3.8	67.2	0.692	3251	27360
Wilbur-Ellis Company	CX842118-3110	8.4	24.0	65.2	8.9	41.3	61.8	32.3	4.2	67.0	0.690	3255	27275
Wilbur-Ellis Company	CX841118-3110	8.3	24.6	66.0	8.6	43.7	61.2	31.2	4.3	66.4	0.683	3208	26744
Dyna-Gro Seed	D55SS45	8.3	23.5	64.6	9.3	39.8	63.6	32.6	4.1	68.4	0.706	3374	28055
Blue River Organic Seed	62G22	8.2	24.1	66.0	9.3	43.0	60.8	31.5	4.4	66.2	0.681	3187	26234
Masters Choice	MCT6733	8.2	22.8	64.1	8.7	42.2	61.5	32.5	3.8	67.2	0.691	3265	26708
Dyna-Gro Seed	D52VC15	8.2	21.0	61.0	8.4	39.7	61.4	36.6	4.0	67.1	0.691	3259	26623
Masters Choice	MCT6552	8.1	24.0	66.2	8.9	40.5	62.3	33.2	4.2	67.7	0.697	3307	26717
Golden Acres Genetics/ LG Seeds	LG 68C22 VTPRO	8.1	22.1	63.6	9.1	42.1	59.4	31.3	3.8	66.7	0.687	3215	25884
Wilbur-Ellis Company	CX851110SS	7.4	21.6	65.6	9.3	40.4	63.0	31.7	4.6	67.8	0.698	3321	24661
	Trial Mean	8.7	24.9	64.9	9.0	41.6	60.8	32.3	4.09	66.8	0.681	3231	28195
	LSD (P < 0.05)	1.0	2.7	2.0	0.6	3.3	3.7	4.71	NS	NS	NS	NS	3573
	CV	7.2	6.7	2.3	4.0	4.9	3.8	9.0	9.2	1.9	2.1	3.4	7.8
	F Test	0.0023	0.0001	0.0003	0.0028	0.0050	0.0554	0.0274	0.2370	0.0872	0.0896	0.0725	0.0132

Table 7A. New Mexico 2018 Forage Corn Performance Test - Agricultural Science Center at Farmington

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

Test Description

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.

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

Management Practices:

Previous Crop:	2017 w. wheat, 2016 fallow, 2015 w. wheat, 2014 fallow, 2013 fallow, 2012 potatoes
Planting Date:	22-May
Harvest Date:	25-28-Sep

Production Inputs

	Rate		Date
Fertilizer:			
Dry Nitrogen	20.0	lb/a	16-May
Nitrogen	17.0	lb/a	31-May
Nitrogen	17.0	lb/a	5-Jun
Nitrogen	17.0	lb/a	12-Jun
Nitrogen	17.0	lb/a	19-Jun
Nitrogen	17.0	lb/a	26-Jun
Nitrogen	17.0	lb/a	3-Jul
Nitrogen	17.0	lb/a	10-Jul
Nitrogen	17.0	lb/a	17-Jul
Nitrogen	17.0	lb/a	24-Jul
Nitrogen	17.0	lb/a	31-Jul
Nitrogen	17.0	lb/a	7-Aug
Total Nitrogen	207.0	lb/a	
$NH_4H_2PO_4$	192	lb/a	16-May
KCl	150	lb/a	16-May
$ZnSO_4$	14	lb/a	16-May
Herbicides:			
Atrazine 4L	1	qt/a	12-Jun
Super Spread MSO	1	qt/a	12-Jun
Status	10	oz/a	12-Jun

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January			
February			
March			
April			
May	63.6	0.32	2.2
June	73.6	0.80	6.7
July	79.6	0.60	12.2
August	76.1	0.21	10.4
September	69.2	0.14	7.7
October	53.1	0.81	3.8
November			
December			

Seasonal Precipitation	2.9 in.
Total Irrigation	43.0 in.
Date of Last Spring Frost:	19-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	179 days

Table 7B. New Mexico 2018 Forage Corn Performance Test - Agricultural Science Center at Farmington

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage	Green Forage	Moisture at Harvest	Plant Height	Ear Height	CP	NDF	NDFD 48hr	Starch	Ash	TDN	Milk/ Ton	Milk/ Acre
		t/a	t/a	%	in	in	%	%	%	%	%	%	lb/t	lb/a
Dyna-Gro Seed	D58RR70	15.8	36.8	56.9	115	53	7.2	40.8	62.6	29.5	4.0	67.8	2979	46,995
Wilbur-Ellis Company	INT6474 DGVT2PRIB	15.1	30.9	50.9	107	47	6.9	40.4	64.4	28.1	4.1	66.8	2885	43,719
Dyna-Gro Seed	D52VC15	14.6	29.7	51.3	100	43	6.7	43.2	60.8	28.2	5.2	66.7	2911	42,095
Wilbur-Ellis Company	INT6709 VT3PRO	14.0	32.1	56.6	119	52	6.3	43.4	62.2	26.8	3.7	66.1	2845	39,899
Golden Harvest Seeds	G11B63-3010A	14.0	26.7	46.7	110	43	6.7	41.0	64.7	28.5	4.0	67.4	2929	41,745
Wilbur-Ellis Company	CX842118-3110	13.0	26.9	51.9	104	43	6.1	41.3	62.0	29.4	4.7	66.5	2885	37,857
Wilbur-Ellis Company	CX618118-VT2PRIB	12.8	30.5	57.9	103	42	6.7	42.7	62.1	28.2	4.0	67.4	2954	37,895
Golden Harvest Seeds	G14H66-3010A	11.9	25.3	52.8	108	43	6.3	43.2	61.8	28.2	3.8	66.5	2881	34,329
Wilbur-Ellis Company	INT9678 VT2PRO	11.9	26.4	56.4	104	42	6.6	42.3	59.8	27.4	4.0	65.2	2798	32,842
Wilbur-Ellis Company	INT9684 VT2PRO	11.7	26.4	56.0	102	43	7.0	40.6	65.5	28.8	4.1	67.7	2947	34,616
Wilbur-Ellis Company	CX851110SS	11.5	24.8	54.5	112	46	6.6	44.1	60.1	29.0	4.2	66.9	2935	34,018
Wilbur-Ellis Company	CX711118-3110	11.4	25.3	55.4	110	42	7.1	41.2	63.3	26.8	4.0	65.5	2790	31,953
Wilbur-Ellis Company	INTSTP6498R	10.8	27.2	60.0	108	45	7.1	46.0	65.8	22.9	4.2	66.2	2805	30,225
Wilbur-Ellis Company	CX801115 DGVT2PRO	10.7	26.8	60.2	105	47	6.9	40.7	61.8	27.0	5.5	65.4	2800	31,185
Dyna-Gro Seed	D55VP77	10.7	21.2	51.7	97	43	7.0	40.3	62.8	28.9	4.3	66.8	2904	31,497
Wilbur-Ellis Company	CX801117 SS	10.6	22.9	56.2	101	42	6.5	42.1	62.3	27.0	4.4	65.9	2831	31,073
Dyna-Gro Seed	D58SS65	10.6	23.3	54.9	100	42	6.8	41.3	61.8	30.0	3.6	68.3	3026	32,182
Dyna-Gro Seed	D55SS45	10.5	23.0	53.8	104	47	7.0	39.6	62.9	28.0	4.7	65.8	2821	29,605
Golden Harvest Seeds	G07B39-3111A	10.4	23.3	57.3	112	44	6.5	40.2	62.5	27.6	4.1	65.2	2773	29,557
Golden Harvest Seeds	G13Z50-3110	10.3	27.1	61.2	102	41	6.4	41.9	64.3	29.3	4.1	68.0	2980	30,896
Dyna-Gro Seed	D54DC94	10.1	21.9	54.6	107	43	7.2	41.8	64.5	26.2	4.3	66.7	2873	28,996
Wilbur-Ellis Company	CX841118-3110	9.4	21.6	59.3	113	52	6.7	42.6	63.6	24.9	4.4	64.8	2724	26,663
	Trial Mean	11.9	26.4	55.3	106	45	6.7	41.9	62.8	27.8	4.2	66.5	2876	34,538
	LSD P < 0.05	NS	NS	NS	9.3	5.4	NS	NS	3.1	NS	NS	NS	NS	NS
	CV	32.7	27.3	11.3	6.2	8.6	8.7	7.5	3.5	14.6	21.1	4.1	7.5	35.9
	F Test	0.6389	0.3377	0.2405	0.0009	0.0001	0.3060	0.5355	0.0107	0.8711	0.4575	0.9541	0.9524	0.7424

Table 8A. New Mexico 2018 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

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

Test Description

Location:

County/Area:	Curry
Longitude:	-103.22
Latitude:	34.60
Elevation:	4435 ft.
Soil Name:	Olton
Soil Texture:	clay loam
Soil Depth:	>60 in.

Test Design:

Replications:	3
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	29000 seed/ac

Management Practices:

Previous Crop:	fallow
Planting Date:	11-Jun
Harvest Date:	19-Nov

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	9	lb/a	carryover
Nitrogen	30	lb/ac	19-Feb
P_2O_5	20	lb/ac	19-Feb
S	4	lb/ac	19-Feb
Zn	1	qt/ac	19-Feb
Nitrogen	75	lb/ac	8-Jun
Herbicides:			
Glyphosate	40	oz/ac	8-Jun
Sharpen	1.5	oz/ac	8-Jun
Starane	6.4	oz/ac	8-Jun
Atrazine	1	pt/ac	8-Jun
Brawl	1.3	pt/ac	12-Jun
Insecticides:			
Sivanto	10.5	oz/ac	15-Aug
Prevathon	20	oz/ac	15-Aug
Sivanto	10.5	oz/ac	24-Sep

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	35.2		
February	40.3		
March	49.3		
April	52.8		
May	69.4		
June 11-30	76.1	0.51	
July	76.5	3.05	
August	74.5	3.94	
September	68.5	1.64	
October	56.0	3.99	
November 1-19	43.0	0.17	
December	37.5		

Seasonal Precipitation:	13.3 in.
Total Irrigation:	0.0 in.
Date of Last Spring Frost:	16-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	182 days

Table 8B. New Mexico 2018 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Grain Yield	Grain Yield	Moisture at Harvest	Test Weight	Plant Height	Head Exertion	Lodging	Heading Date
		bu/a	lb/a	%	lb/bu	in	in	%	
Dyna-Gro Seed	GX17948	113.0 ***	6330 ***	14.6	58.5 *	21.7 *	5.0	0	8-Aug
Advanta Seeds	ADV XG602	112.9 *	6323 *	14.2	56.9 *	20.7 *	7.3 *	0	16-Aug
Golden Acres Genetics	2620C	112.7 *	6310 *	12.9	56.6 *	16.0	7.7 *	0	11-Aug
Golden Acres Genetics	2730B	109.1 *	6109 *	13.5	58.2 *	16.7	7.0 *	0	15-Aug
Dyna-Gro Seed	M69GR88	107.5 *	6020 *	15.1	56.5 *	21.0 *	4.3	0	12-Aug
Browning Seed, Inc.	Phoenix	105.3 *	5897 *	13.8	58.3 *	18.7	8.7 ***	0	16-Aug
Dyna-Gro Seed	M74GB17	103.7 *	5809 *	14.8	57.4 *	19.0	6.3	0	16-Aug
Advanta Seeds	ADV XG001	102.9 *	5761 *	14.5	58.5 *	15.0	7.3 *	0	17-Aug
Dyna-Gro Seed	M60GB31	99.2 *	5555 *	13.9	57.6 *	17.3	6.3	0	17-Aug
Dyna-Gro Seed	GX17968	97.6 *	5465 *	14.1	57.2 *	20.0	7.7 *	0	7-Aug
Dyna-Gro Seed	GX17962	97.2 *	5442 *	14.0	58.6 ***	16.3	5.0	0	10-Aug
Dyna-Gro Seed	M60GB88	93.2 *	5217 *	12.9	58.0 *	17.0	5.7	0	17-Aug
Advanta Seeds	AG 1203	91.4 *	5119 *	13.8	57.9 *	18.7	6.0	0	12-Aug
Dyna-Gro Seed	M68GR41	89.8 *	5033 *	15.5	54.8 *	17.3	2.3	0	9-Aug
Browning Seed, Inc.	775 W	89.1 *	4989 *	13.3	57.6 *	15.7	6.0	0	14-Aug
Dyna-Gro Seed	GX17379	84.7 *	4747 *	15.3	51.5 *	16.7	1.3	0	18-Aug
Dyna-Gro Seed	GX16833	84.6 *	4738 *	15.3	54.7 *	24.3 ***	2.3	0	23-Aug ***
Advanta Seeds	AG 1201	82.8 *	4640 *	13.0	56.4 *	16.3	5.0	0	15-Aug
Advanta Seeds	ADV XG629	78.9 *	4416 *	13.1	57.6 *	17.7	5.0	0	13-Aug
Browning Seed, Inc.	Blaze	78.1 *	4375 *	14.2	58.0 *	16.0	5.7	0	12-Aug
Browning Seed, Inc.	Challenger BMX	77.3 *	4327 *	14.5	51.0	21.0 *	5.7	0	8-Aug
Dyna-Gro Seed	M73GR55	59.5	3330	17.0 ***	35.8	22.7 *	2.3	0	11-Aug
	Trial Mean	94.1	5270	14.2	55.8	13.3	5.5	0.0	13-Aug
	LSD (P > 0.05)	NS	NS	0.8	7.5	4.0	2.2	0.0	3.2
	CV	32.3	32.3	3.4	8.1	13.3	24.3	0.0	0.9
	F Test	0.8661	0.8661	<0.0001	0.0002	0.0006	<0.0001	<0.0001	<0.0001

*** Highest numerical value in the column.

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

Table 9A. New Mexico 2018 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez, and C. Hill

Test Description

Location:

County/Area:	Eddy
Longitude:	-104.22
Latitude:	32.45
Elevation:	3356 ft.
Soil Name:	Pima
Soil Texture:	silt loam
Soil Depth:	32 in.

Test Design:

Replications:	3
Plot Length:	30 ft.
Rows per Plot:	2
Row Spacing:	40 in.
Seeding Rate:	85,000 seed/a

Management Practices:

Previous Crop:	cotton
Planting Date:	1-Jun
Harvest Date:	19-Sep

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	20 lb/a	25-Apr
Nitrogen	225 lb/a	23-Jul
P2O5	96 lb/a	25-Apr

Herbicides:

None

Insecticides:

None

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	37.5	0.10	
February	46.1	0.31	
March	54.0	0.03	
April	60.5	0.00	1.55
May	73.0	1.89	2.79
June	80.1	1.67	8.74
July	80.7	1.72	5.14
August	79.5	1.38	7.23
September	71.7	1.92	2.30
October	58.9	3.01	
November	46.0	0.23	
December			

Seasonal Precipitation	8.92 in.
Total Irrigation	27.74 in.
Date of Last Spring Frost:	21-Mar
Date of First Fall Frost:	12-Nov
Frost Free Period:	236 days

Table 9B. New Mexico 2018 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum† Type	Maturity§ Group	Brown Midrib	Dry Forage	65% Adj Green Forage	Moisture at Harvest	CP	NDF	NDFD 30hr	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
					t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Advanta Seeds	AF 8301	FS	M	N	4.9	19.4	74.9	7.6	60.4	55.0	8.5	63.2	0.643	2411	11711
Dyna-Gro Seed	Super Sile 20	FS	ML	Y	4.6	18.1	74.7	7.5	59.9	52.7	7.6	62.9	0.637	2305	10557
Advanta Seeds	ADV XF033	FS	ML	N	4.5	16.6	72.7	7.9	58.4	57.3	6.9	65.4	0.677	2527	11358
Dyna-Gro Seed	F74FS23 BMR	FS	ML	Y	4.5	18.9	76.0	8.1	58.1	63.0	6.6	66.7	0.697	2656	12044
Dyna-Gro Seed	705F	FS	ME	N	4.2	16.0	73.5	7.9	59.4	55.0	8.2	62.9	0.643	2487	10599
Dyna-Gro Seed	Super Sile 30	FS	ME	N	4.1	17.4	76.5	8.5	61.6	55.7	8.5	62.4	0.630	2505	10158
Dyna-Gro Seed	F76FS77 BMR	FS	ML	Y	4.0	17.3	77.1	8.7	62.9	57.3	10.0	61.7	0.620	2627	10464
Advanta Seeds	ADVXF372	FS	M	Y	3.6	15.2	76.0	8.9	56.7	62.7	9.4	64.9	0.667	2651	9726
Dyna-Gro Seed	Dual Forage SCA	FS/GS	ML	N	3.5	11.6	69.2	8.0	62.1	53.7	10.1	59.5	0.590	2418	8358
Dyna-Gro Seed	FX 18811	FS	M	N	3.5	13.9	75.3	8.1	58.8	58.3	7.4	65.4	0.677	2597	9054
Advanta Seeds	AF 7401	FS	ML	Y	3.4	14.1	76.3	8.1	58.0	63.3	10.1	63.5	0.643	2678	8989
Mojo Seed Enterprises	Opal	FS	ML	N	3.4	13.1	74.0	8.3	59.2	56.0	8.2	63.9	0.653	2478	8579
Dyna-Gro Seed	FX18851 BMR	FS	ML	Y	3.2	14.6	77.7	9.3	59.3	60.7	9.5	64.5	0.663	2816	9141
Dyna-Gro Seed	FX18878 BMR	FS	M	Y	2.7	11.1	75.3	8.8	57.5	61.7	8.2	65.9	0.680	2667	7275
Dyna-Gro Seed	GX 16921	FS/GS	ML	N	2.4	8.7	72.6	8.6	61.1	55.7	9.8	61.2	0.613	2567	6112
			Trial Mean		3.8	15.1	74.7	8.3	59.6	57.8	8.6	63.6	0.649	2559	9608
			LSD (P < 0.05)		1.5	5.5	2.9	NS	NS	4.7	1.6	NS	NS	239	NS
			CV		23.8	22.0	22.2	11.2	4.6	4.9	11.3	3.8	5.5	5.9	23.9
			F Test		0.0721	0.0168	0.0003	0.5675	0.2745	0.0002	0.0006	0.0699	0.0715	0.0191	0.1651

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

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

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

Table 10A. New Mexico 2017 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, S. Bustillos, M. Lopez, and C. Hill

Test Description

Location:

County/Area:	Eddy
Longitude:	-104.22
Latitude:	32.45
Elevation:	3356 ft.
Soil Name:	Pima
Soil Texture:	silt loam
Soil Depth:	32 in.

Test Design:

Replications:	3
Plot Length:	30 ft.
Rows per Plot:	2
Row Spacing:	40 in.
Seeding Rate:	85,000 seed/a

Management Practices:

Previous Crop:	cotton	
Planting Date:	1-Jun	
Harvest Date:	21-Aug	1st cut
	10-Oct	2nd cut

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	20 lb/a	25-Apr
Nitrogen	50 lb/a	22-Aug
P_2O_5	96 lb/a	25-Apr

Herbicides:

None

Insecticides:

None

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	^{o}F	in.	in.
January	37.5	0.10	
February	46.1	0.31	
March	54.0	0.03	
April	60.5	0.00	1.55
May	73.0	1.89	2.79
June	80.1	1.67	8.74
July	80.7	1.72	5.14
August	79.5	1.38	2.68
September	71.7	1.92	7.32
October	58.9	3.01	
November	46.0	0.23	
December			

Seasonal Precipitation	11.93 in.
Total Irrigation	28.22 in.
Date of Last Spring Frost:	21-Mar
Date of First Fall Frost:	12-Nov
Frost Free Period:	236 days

Table 10B. New Mexico 2018 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Results

			Harvest 1					Harvest 2					Total	
Brand/Company Name	Hybrid/Variety Name	Type[1]	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
Dyna-Gro Seed	FX18843SS BMR	SxS	4.5	21.0	78.2	2520	11472	1.8	13.3	86.3	2638	4867	6.4	16340
American Hybrids	Lincoln	SxS	4.2	22.7	81.3	2433	10206	2.2	17.0	87.1	2626	5842	6.4	16048
Dyna-Gro Seed	FX18835SS	SxS	3.9	19.4	79.3	2295	9145	2.4	16.1	84.8	2535	6016	6.3	15161
Brownig Seed, Inc.	Sweet Sioux BMR	SxS	3.9	17.7	76.2	2557	9921	2.3	16.0	85.7	2701	6184	6.2	16105
American Hybrids	Brighton	SxS	3.3	18.0	81.6	2341	7834	2.5	15.0	83.3	2568	6488	5.9	14322
Dyna-Gro Seed	Danny Boy BMR	SxS	3.7	18.3	79.0	2639	9848	2.1	16.6	87.2	2534	5407	5.8	15255
Dyna-Gro Seed	Full Graze BMR	SxS	3.9	20.3	80.1	2573	9978	2.0	13.7	85.8	2638	5158	5.8	15136
Brownig Seed, Inc.	Cadan 99B	SxS	3.9	17.6	77.4	2206	8137	1.9	11.5	83.9	2637	4952	5.7	13089
American Hybrids	Navion	SxS	3.1	16.0	81.1	2359	7286	2.5	16.7	84.9	2584	6509	5.6	13795
Dyna-Gro Seed	Danny Boy II BMR	SxS	3.2	16.7	80.2	2405	7659	2.1	17.0	87.9	2562	5307	5.3	12966
Advanta Seeds	S6504	SxS	3.2	18.9	80.8	2505	8146	2.0	16.4	87.8	2542	5120	5.2	13266
	Trial Mean		3.7	18.9	79.6	2439	9057	2.2	15.4	85.9	2597	5623	5.9	14680
	LSD		NS	NS	NS	NS	NS	NS	NS	1.5	NS	NS	NS	NS
	CV		41.0	42.3	7.0	8.1	41.3	19.4	17.4	1.2	3.5	20.7	25.6	26.1
	F Test		0.9615	0.9881	0.9419	0.1063	0.8735	0.2553	0.1012	0.0001	0.2262	0.4047	0.9804	0.9204

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

Table 10C. New Mexico 2018 Irrigated Forage Sorghum & Sorghum Sudangrass (Multi-Cut) Performance Test - Agricultural Science Center at Artesia

Results

			Harvest 1						Harvest 2					
Brand/Company Name	**Hybrid/Variety Name**	**Type[1]**	**CP**	**NDF**	**NDFD 48hr**	**RFQ**	**TDN**	**NE_l**	**CP**	**NDF**	**NDFD 48hr**	**RFQ**	**TDN**	**NE_l**
			%	%	%	%	%	Mcal/lb	%	%	%	%	%	Mcal/lb
Dyna-Gro Seed	FX18843SS BMR	SxS	7.6	69.8	58.3	97	57.8	0.589	12.5	65.0	63.8	110	60.2	0.616
American Hybrids	Lincoln	SxS	9.5	60.5	57.8	112	61.3	0.627	13.1	62.0	64.0	111	61.3	0.628
Dyna-Gro Seed	FX18835SS	SxS	6.6	73.0	52.5	83	55.3	0.561	11.9	66.2	59.3	102	59.2	0.605
Brownig Seed, Inc.	Sweet Sioux BMR	SxS	8.8	58.9	59.0	120	64.1	0.660	13.2	61.2	64.5	117	62.6	0.643
American Hybrids	Brighton	SxS	7.1	68.1	51.8	92	57.5	0.586	12.4	65.2	58.8	104	60.2	0.616
Dyna-Gro Seed	Danny Boy BMR	SxS	8.7	64.7	62.8	115	60.2	0.616	13.1	64.5	65.0	104	59.0	0.602
Dyna-Gro Seed	Full Graze BMR	SxS	8.4	67.8	59.8	100	57.7	0.588	13.0	61.6	65.5	115	61.7	0.632
Brownig Seed, Inc.	Cadan 99B	SxS	7.4	64.1	52.8	92	58.6	0.598	12.0	65.1	60.0	106	60.1	0.614
American Hybrids	Navion	SxS	9.3	66.7	57.3	91	56.4	0.573	13.7	61.7	62.0	104	60.2	0.616
Dyna-Gro Seed	Danny Boy II BMR	SxS	7.1	71.0	59.3	86	54.7	0.555	11.8	64.1	64.3	107	59.8	0.611
Advanta Seeds	S6504	SxS	8.7	68.8	59.5	96	57.3	0.584	12.9	63.5	63.8	105	60.1	0.615
	Trial Mean		8.1	66.7	57.3	98	58.2	0.594	12.7	63.6	62.8	108	60.4	0.618
	LSD		1.6	4.2	3.4	18.0	NS	0.044	NS	2.9	2.2	NS	NS	NS
	CV		14.0	4.3	4.2	12.8	4.7	5.1	7.4	3.1	2.4	6.7	3.0	3.3
	F Test		0.0098	0.0001	0.0001	0.0028	0.2556	0.0015	0.1327	0.0071	0.0001	0.1080	0.2366	0.2417

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

Table 11A. New Mexico 2018 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

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

Test Description

Location:

County/Area:	Curry
Longitude:	-103.22
Latitude:	34.60
Elevation:	4435 ft.
Soil Name:	Olton
Soil Texture:	clay loam
Soil Depth:	>60 in.

Test Design:

Replications:	3
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	75,000 ac.

Notes:

Major oven fire destroyed subsamples for dry matter determination and quality analysis. Only wet yields are presented.

Management Practices:

Previous Crop:	fallow
Planting Date:	30-May
Harvest Date:	4-Oct

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	9	lb/ac	carryover
Nitrogen	101	lb/ac	pre-plant
P_2O_5	35	lb/ac	pre-plant
Zn	2	qt/ac	pre-plant
Herbicides:			
Atrazine	1	pt/ac	at plant
Glyphosate	40	oz/ac	at plant
Yukon	6	oz/ac	23-Jun
Brawl	1	pt/ac	23-Jun
Insecticides:			
Sivanto	10.5	oz/ac	15-Aug
Prevathon	20	oz/ac	15-Aug
Sivanto	10.5	oz/ac	24-Sep

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	35.2		
February	40.3		
March	49.3		
April	52.8		
May	69.4	1.60	1.80
June	76.1	1.71	2.50
July	76.5	3.05	5.75
August	74.5	3.94	0.00
September	68.5	1.64	1.60
October 1-4	56.0	0.00	0.00
November			
December			

Seasonal Precipitation:	11.9 in.
Total Irrigation:	11.7 in.
Date of Last Spring Frost:	16-Apr
Date of First Fall Frost:	15-Oct
Frost Free Period:	182 days

Table 11B. New Mexico 2018 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 at Harvest	CP	NDF	NDFD 48hr	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
					t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Advanta Seeds	ADV S6504	SxS	PS	Y	.	36.5	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18843SS BMR	SxS	ML	Y	.	28.3	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18835SS	SxS	ML	N	.	24.6	.	.	.	.	.	.	.	.	.
Sorghum Partners	SS405	FS	L	N	.	24.5	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Danny Boy BMR	SxS	PS	Y	.	23.6	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	705F	FS	ME	N	.	22.0	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Super Sile 20	FS	ML	Y	.	21.8	.	.	.	.	.	.	.	.	.
Advanta Seeds	AF 8301	FS	M	N	.	21.7	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18811	FS	M	N	.	20.1	.	.	.	.	.	.	.	.	.
Advanta Seeds	ADV XF033	FS	M	N	.	19.7	.	.	.	.	.	.	.	.	.
American Hybrids	Val-4	FS	L	N	.	19.2	.	.	.	.	.	.	.	.	.
Sorghum Partners	SPX56216	FS	L	Y	.	18.9	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Super Sile 30	FS	ME	N	.	17.8	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Fullgraze BMR	SxS	ML	Y	.	17.0	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18878 BMR	FS	M	Y	.	16.8	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18851 BMR	FS	ML	Y	.	16.6	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	.	15.9	.	.	.	.	.	.	.	.	.
Advanta Seeds	AF 7401	FS	ML	Y	.	15.9	.	.	.	.	.	.	.	.	.
Sorghum Partners	SP2876	FS	L	Y	.	15.8	.	.	.	.	.	.	.	.	.
Sorghum Partners	SP4555	SxS	M	Y	.	15.7	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	F76FS77 BMR	FS	ML	Y	.	15.4	.	.	.	.	.	.	.	.	.
Sorghum Partners	NK300	FS	ME	N	.	15.2	.	.	.	.	.	.	.	.	.
Advanta Seeds	ADV XF372	FS	M	Y	.	14.6	.	.	.	.	.	.	.	.	.
Sorghum Partners	SP3808SB BMR	FS	ML	Y	.	13.0	.	.	.	.	.	.	.	.	.
Mojo Seed Enterprises	Opal	FS	ML	N	.	11.0	.	.	.	.	.	.	.	.	.
Mojo Seed Enterprises	EXP-715	FS	ML	N	.	10.7	.	.	.	.	.	.	.	.	.
Mojo Seed Enterprises	EXP-719	FS	ML	N	.	10.1	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	GX16921	FS/GS	ML	N	.	7.3	.	.	.	.	.	.	.	.	.
	Trial Mean					18.2	.	.	.	.	.	.	.	.	.
	LSD P<0.05					7.1	.	.	.	.	.	.	.	.	.
	CV					23.8	.	.	.	.	.	.	.	.	.
	F Test					<0.0001	.	.	.	.	.	.	.	.	.

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

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

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

Table 12A. New Mexico 2018 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis

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

Test Description

Location:

County/Area:	Curry
Longitude:	-103.22
Latitude:	34.60
Elevation:	4435 ft.
Soil Name:	Olton
Soil Texture:	clay loam
Soil Depth:	>60 in.

Test Design:

Replications:	3
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	75,000 ac.

Notes:

Major oven fire destroyed subsamples for dry matter determination and quality analysis. Only wet yields are presented.

Management Practices:

Previous Crop:	fallow
Planting Date:	11-Jun
Harvest Date:	11-Oct

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	7	lb/ac	carryover
Nitrogen	30	lb/ac	pre-plant
P_2O_5	20	lb/ac	pre-plant
S	4	lb/ac	pre-plant
Zn	1	qt/ac	pre-plant
Herbicides:			
Atrazine	1	pt/ac	at plant
Glyphosate	40	oz/ac	at plant
Sharpen	1.5	oz/ac	at plant
Brawl	1.3	pt/ac	at plant
Starane	6.4	oz/ac	at plant
Insecticides:			
Sivanto	10.5	oz/ac	15-Aug
Prevathon	20	oz/ac	15-Aug
Sivanto	10.5	oz/ac	24-Sep

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	35.2		
February	40.3		
March	49.3		
April	52.8		
May	69.4	1.60	
June	76.1	1.71	
July	76.5	3.05	
August	74.5	3.94	
September	68.5	1.64	
October 1-11	56.0	1.12	
November			
December			

Seasonal Precipitation:	13.1	in.
Total Irrigation:	0.0	in.
Date of Last Spring Frost:	16-Apr	
Date of First Fall Frost:	15-Oct	
Frost Free Period:	182	days

Table 12B. New Mexico 2018 Dryland 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 at Harvest	CP	NDF	NDFD 48hr	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
					t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	FX18811	FS	M	N	.	24.2	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Super Sile 20	FS	ML	Y	.	17.0	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Super Sile 30	FS	ME	N	.	16.8	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18878 BMR	FS	M	Y	.	14.3	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	705F	FS	ME	N	.	14.2	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	FX18851 BMR	FS	ML	Y	.	13.8	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	GX16921	FS/GS	ML	N	.	12.0	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	F76FS77 BMR	FS	ML	Y	.	12.0	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	Dual Forage SCA	FS/GS	ML	N	.	11.8	.	.	.	.	.	.	.	.	.
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	.	11.4	.	.	.	.	.	.	.	.	.
	Trial Mean					14.8	.	.	.	.	.	.	.	.	.
	LSD P<0.05					3.0	.	.	.	.	.	.	.	.	.
	CV					11.7	.	.	.	.	.	.	.	.	.
	F Test					<0.0001	.	.	.	.	.	.	.	.	.

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

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

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

Appendix A

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

New Mexico 2018 Grain Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Dyna-Gro Seed	D58VC65	118
P.O. Box 38, 103 E. Mill Rd	D55VC45	115
Artesia, NM 88210	D57VC17	117
Shawn Carter	D57VC51	117
318-282-9804	D54VC14	114
	D52VC63	112
	D49VC70	109
	D52VC91	112
	D54DC94	114
	D45SS65	105
	D41SS71	101
	D44VC36	104
	D50VC30	110
	D43VC81	103
	D47SS29	107
Golden Acres Genetics/LG Seeds	LG 66C32 STX	116
205 Old Hewitt Rd	ES 7667 VT2PRO	117
Waco, TX 76712		
Chris Sheppard		
254-761-9838		
Golden Harvest Seeds	G11B63-3010A	111
443 West County Rd	G13T43-3010	113
Sutherland, NE 69165	G13Z50-3110	113
John Flynn	G18D87-3111	118
308-386-8725	G95D32-3220	95
	G97N86-3110	97
	G00H12-3010	100
	G03C84-3120	103
	G05K08-3010A	105
	G06Q68-3220	106

New Mexico 2018 Forage Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Blue River Organic Seed	62G22	110
2326 230th St.	66G25	112
Ames, IA 50014	70A47	114
Scott Ausborn		
800-370-7979		
Dyna-Gro Seed	D52VC15	112
P.O. Box 38, 103 E. Mill Rd	D55SS45	115
Artesia, NM 88210	D55VC77	115
Shawn Carter	D57VC17	117
318-282-9804	D58RR70	118
	D58SS65	118
	D54DC94	114
Golden Acres Genetics/LG Seeds	ES 7667 VT2PRO	117
205 Old Hewitt Rd	LG 68C22 VT2PRO	118
Waco, TX 76712	LG 68C88 VT2PRO	118
Chris Sheppard		
254-761-9838		
Golden Harvest Seeds	G14H66-3010A	114
443 West County Rd	G16K01-3111	116
Sutherland, NE 69165	G18D87-3111	118
John Flynn	G18H82-3111	118
308-386-8725	NK1860-3111	118
	G07B39-3111A	109
	G11B63-3010A	111
	G13Z50-3110	113
Masters Choice	MCT 6552	115
305 W. Vienna St	MCT 6653	116
Anna, IL 62906	MCT 6733	117
Kyle Vosburgh	EXP 672T	117
618-697-7031	EXP 621T	114
	EXP 671T	114

New Mexico 2018 Forage Corn Hybrid Performance Test, Con't.

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Wilbur-Ellis Company	CX841118-3110	118
2219 229th Place	CX842118-3110	118
Ames, IA 50014	CX711118-3110	118
Aaron Peterson	CX618118-VT2PRIB	118
402-290-0373	CX801117 SS	117
	CX801115 DGVT2PRO	115
	CX851110 SS	110
	INT9684 VT2PRO	118
	INT6709 VT3PRO	118
	INT9678 VT2PRO	117
	INT STP6498R	114
	INT 6474 DGVT2PRIB	114

New Mexico 2018 Grain Sorghum Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Maturity Group*
Advanta Seeds	ADV XG602	ME
201 E John Carpenter Fwy #660	ADV XG629	E
Irving, TX 75062	ADV XG001	ME
Zach Eder	AG 1203	ME
979-332-5138	AG 1201	ME
Browning Seed, Inc.	Challenger BMX	M
3101 S. I-27	775 W	M
Plainview, TX 79072	Phoenix	ME
Rodney Smith	Blaze	M
806-293-5271		
Dyna-Gro Seed	M60GB88	ME
P.O. Box 38, 103 E. Mill Rd	M60GB31	ME
Artesia, NM 88210	M68GR41	M
Shawn Carter	GX17948	M
318-282-9804	M69GR88	M
	GX16833	MF
	GX17962	MF
	GX17968	MF
	M73GR55	MF
	M74GB17	MF
	GX17379	MF
Golden Acres Genetics	2620C	ME
205 Old Hewitt Rd	2730B	ME
Waco, TX 76712		
Chris Sheppard		
254-761-9838		

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

New Mexico 2018 Forage Sorghum/SxS Hybrid Performance Test (Single Cut)

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Advanta Seeds	AF 7401	FS	ML	Y
201 John Carpenter Fwy #660	ADV XF372	FS	M	Y
Irving, TX 75062	AF 8301	FS	M	N
Zach Eder	ADV XF033	FS	M	N
979-332-5138	ADV S6504	SxS	PS	Y
American Hybrids	Val-4	FS	L	N
3101 S. I-27				
Plainview, TX 79072				
Rodney Smith				
806-293-5271				
Dyna-Gro Seed	705F	FS	ME	N
P.O. Box 38, 103 E. Mill Rd	Super Sile 30	FS	ME	N
Artesia, NM 88210	FX18878 BMR	FS	M	Y
Shawn Carter	F74FS23 BMR	FS	M	Y
318-282-9804	FX18811	FS	M	N
	FX18851 BMR	FS	MF	Y
	F76FS77 BMR	FS	MF	Y
	Super Sile 20	FS	MF	Y
	Dual Forage SCA	FS/G	MF	N
	GX16921	FS/G	MF	N
	Danny Boy BMR	SxS	PS	Y
	Danny Boy II BMR	SxS	PS	Y
	Fullgraze BMR	SxS	MF	Y
	FX18835SS	SxS	MF	N
	FX18843SS BMR	SxS	MF	Y
Mojo Seed Enterprises	Opal	FS	ML	N
P.O. Box 1716	EXP-715	FS	ML	N
Hereford, TX 79045	EXP-719	FS	ML	N
Jerry O'Rear				
806-445-6442				

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

New Mexico 2018 Forage Sorghum/SxS Hybrid Performance Test (Single Cut), Con't.

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Sorghum Partners / Chromatin, Inc.	SPX56216	FS	L	Y
1301 E. 50th St	NK 300	FS	ME	N
Lubbock, TX 79404	SS 405	FS	L	N
Rick Kochenower	SP 4555	SxS	M	Y
405-206-8186	SP 2876	FS	L	Y
	SP 3808SB BMR	FS	ML	Y

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

New Mexico 2018 Forage Sorghum/SxS Hybrid Performance Test (Multi Cut)

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
American Hybrids	Brighton	SxS	ML	N
3101 S. I-27	Lincoln	SxS	M	Y
Plainview, TX 79072	Navion	SxS	ML	Y
Rodney Smith				
806-293-5271				
Browning Seed, Inc.	Cadan 99B	SxS	ML	N
3101 S. I-27	Sweet Sioux BMR	SxS	M	Y
Plainview, TX 79072				
Rodney Smith				
806-293-5271				
Dyna-Gro Seed	Danny Boy BMR	SxS	PS	Y
P.O. Box 38, 103 E. Mill Rd	Danny Boy II BMR	SxS	PS	Y
Artesia, NM 88210	Fullgraze BMR	SxS	ML	Y
Shawn Carter	FX18835SS	SxS	ML	N
318-282-9804	FX18843SS BMR	SxS	ML	Y

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

Appendix B

Glossary of Terms

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

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

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

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

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

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

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

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

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

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

Milk/ton (Milk production per ton of dry matter forage): Milk/ton is an index of forage nutritive value. Milk/ton is calculated from the Milk2006 Excel spreadsheet http://www.uwex.edu/ces/forage/pubs/milk2006.xls. This index uses forage analyses (CP, NDF, NDFD 48hr, *S*tarch 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 Removal = dry forage (t/a) x 2000 x N (%); 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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