New Mexico
2021 Corn and Sorghum
Performance Tests

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

New Mexico
2021
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

Authors:

M.A. Marsalis[1], R.P. Flynn[2], L.M. Lauriault[3], A. Mesbah[4], and K. Djaman[5]

Thanks to:

B. Niece and A. Scott, Former Senior Research Assistant and Farm/Ranch Manager, respectively, Agricultural Science Center at Clovis
M.M. West, S.C. Allen, and Dallen Begay, Research Scientists, and Farm Manager, Agricultural Science Center at Farmington
C. Havlik, D. Price, and R. Garcia, Senior Research Assistant, Assistant Farm Manager, and Farm/Ranch Manager, respectively, Agricultural Science Center at Los Lunas
R. Pacheco, Martin Lopez, Christopher Hill, Research Assistant, Farm Supervisor, and Lab Technician, respectively, Agricultural Science Center at Artesia
J. Box, G. Martinez, P. Cooksey, J. Jennings, and S. Jennings, Farm/Ranch Manager, Research Assistant, Assoc. Admin. Assistant, and Laborers, respectively, Rex E. Kirksey Agricultural Science Center at Tucumcari

[1] Superintendent and Extension Forage Specialist, Agricultural Science Center at Los Lunas
[2] Associate Professor and Extension Agronomist, Agricultural Science Center at Artesia
[3] Superintendent and Forage Crop Management Scientist, Agricultural Science Center at Tucumcari
[4] Superintendent and Agronomist, Agricultural Science Center at Clovis
[5] Assistant Professor of Agronomy, Agricultural Science Center at Farmington

Table of Contents

List of Tables

List of Figures

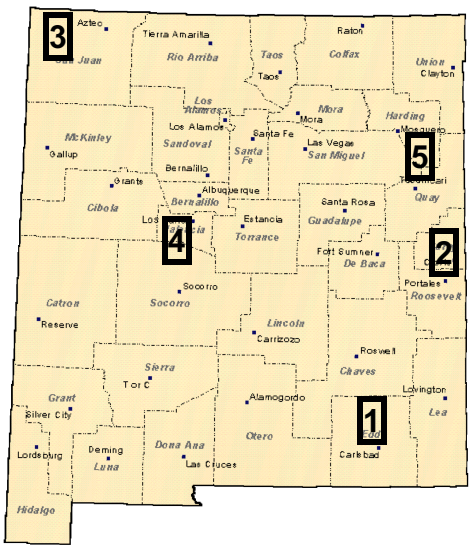
New Mexico 2021 Corn and Sorghum Performance Tests

INTRODUCTION

Performance tests for grain corn, grain sorghum, forage corn, forage sorghum and sorghum sudangrass were conducted at the Agricultural Science Centers at Artesia, Clovis, Farmington, and Tucumcari New Mexico in 2021 (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.

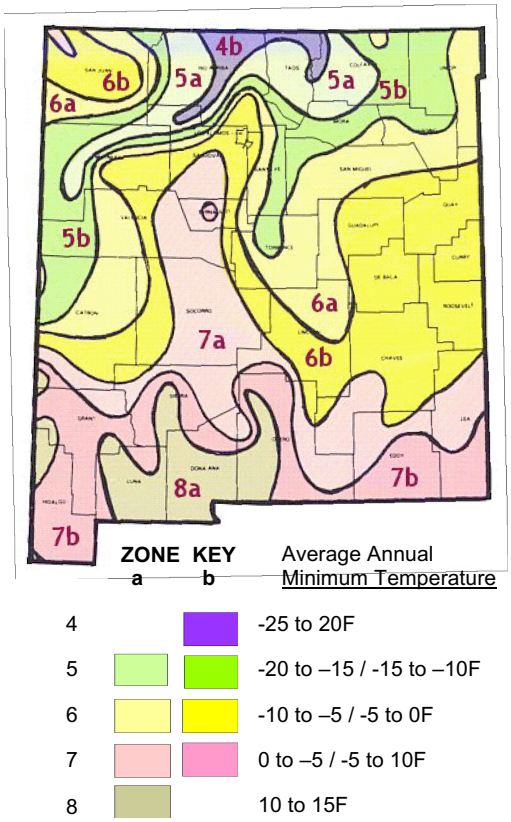


Table 1. Historical average monthly precipitation (inches) and temperatures (°F) for cooperating agricultural science centers.					
	Artesia	Clovis	Farmington	Los Lunas	Tucumcari
	Precipitation (inches)				
January	0.39	0.36	0.56	0.38	0.37
February	0.41	0.39	0.55	0.41	0.46
March	0.41	0.70	0.66	0.47	0.74
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 2021 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 2022 Corn and Sorghum Performance Tests will be mailed to seed companies in February 2022. Additional 2022 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 several of these trials, milk production estimates

were calculated using the University of Wisconsin Milk2000 and Milk2006 spreadsheet programs.

RESULTS

Results for the 2021 corn and sorghum variety tests are shown in **Tables 2-16** 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.

A grain sorghum test was planted, but not harvested at Tucumcari. It did not produce grain due to low precipitation during the heading and grain filling period and despite heavy rain in July that produced significant early vegetative growth.

In addition, lack of irrigation supply combined with a lack of timely rainfall, led to poor performance of forage trials at Tucumcari, and hence, low yields and high CVs for those trials.

Table 2A. New Mexico 2021 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:	20-May
Harvest Date:	28-Oct

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	15	lb/ac	carryover
Nitrogen	70	lb/ac	6-Apr
Zn	4	qt/ac	6-Apr
Phos	65	lb/ac	6-Apr
S	22	lb/ac	6-Apr
Nitrogen	91.2	lb/ac	21-May
Sulfur	16.5	lb/ac	21-May
Herbicides:			
Roundup PowerMax	1	qt/ac	7-Apr
DiFlexx	8	oz/ac	7-Apr
Panther	20	oz/ac	7-Apr
Roundup PowerMax	1	qt/ac	21-May
Atrazine	2	pt/ac	21-May
Balance Flex	2	oz/ac	21-May
Warrant	2	qt/ac	21-May
DiFlexx	8	oz/ac	23-Jun
Warrant	2	qt/ac	23-Jun
Insecticides:			
Prevathon	14	oz/ac	23-Jun
Oberon	8	oz/ac	23-Jun
Onager	16	oz/ac	5-Aug
Prevathon	20	oz/ac	5-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	36.4	0.17	
February	35.4	0.06	
March	47.3	0.06	
April	53.6	0.22	7.50
May	64.1	1.17	3.30
June	74.9	3.95	2.20
July	74.0	5.59	4.10
August	74.0	2.24	4.10
September	73.0	0.86	3.10
October 1-28	66.0	0.00	
November			
December			

Seasonal Precipitation:	24.3 in.
Total Irrigation:	14.0 in.

Date of Last Spring Frost:	22-Apr
Date of First Fall Frost:	20-Oct
Frost Free Period:	181 days

Table 2B. New Mexico 2021 Grain Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Relative Maturity	Grain Yield	Grain Yield	Moisture at Harvest	Test Weight
			bu/a	lb/a	%	lb/bu
Dyna-Gro Seed	D52DC82	112	232.8	13037	11.3	53.8
Dyna-Gro Seed	D57TC29	117	229.8	12869	12.2	60.0
Dyna-Gro Seed	D54SS34	114	225.6	12635	11.7	63.2
Dyna-Gro Seed	D54SS74	114	223.4	12507	11.4	61.2
Dyna-Gro Seed	D55VC80	115	219.2	12274	11.7	59.8
Dyna-Gro Seed	D57VC17	117	218.1	12211	12.2	62.8
Dyna-Gro Seed	D54VC14	114	217.9	12204	11.4	61.4
Dyna-Gro Seed	D58VC65	118	210.8	11805	11.7	62.8
Dyna-Gro Seed	D53TC19	113	207.7	11628	11.2	61.1
	Trial Mean		220.6	12352	11.6	60.7
	LSD (P > 0.05)		NS	NS	0.4	NS
	CV		6.8	6.8	2.0	5.3
	F Test		0.5367	0.5363	0.0005	0.0674

Table 3A. New Mexico 2021 Early Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Djaman, K. (PI), M.M. West, and D. Begay

Test Description

Location:

County/Area:	San Juan
Longitude:	-108.3061
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:	Pivot 6
Planting Date:	19-May
Harvest Date:	29-Nov

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	68.75	lb/a	1-Jul
Nitrogen	68.75	lb/a	12-Jul
Nitrogen	68.75	lb/a	16-Jul
Nitrogen	68.75	lb/a	19-Jul
Total Nitrogen	275.0	lb/a	
P_2O_5	0	lb/a	
K_2O	0	lb/a	
$ZnSO_4$	0	lb/a	
Herbicides:			
		oz/a	
Bicep Mag II	2.1	qt/a	20-May
Super Spread MSO		oz/a	

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	30	0.37	
February	35	0.39	
March	41	0.66	
April	52	0.07	
May	61	0.02	2.0
June	73	0.21	8.3
July	77	0.36	11.9
August	73	0.37	7.4
September	66	0.83	4.7
October	52	0.35	0.8
November	44	0.09	
December	34	0.85	

Seasonal Precipitation	2.14	in.
Total Irrigation	35.1	in.

Date of Last Spring Frost:	24-May	
Date of First Fall Frost:	13-Oct	
Frost Free Period:	142	days

Table 3B. New Mexico 2021 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	D45TC55		334.5	13.6	58.5	110	46	26-Jul	34,464
Dyna-Gro Seed	D43SS81		329.4	13.6	58.7	106	43	26-Jul	37,861
Dyna-Gro Seed	D51VC41		318.6	13.8	58.8	105	43	27-Jul	36,917
Dyna-Gro Seed	D50VC09		316.3	13.7	59.0	108	45	27-Jul	37,026
Dyna-Gro Seed	D48QZ22		312.1	14.6	57.3	104	41	28-Jul	34,521
Dyna-Gro Seed	D49SS70		297.3	13.4	59.0	105	45	26-Jul	38,405
Dyna-Gro Seed	D44SS54		295.1	14.1	59.0	110	47	27-Jul	37,026
Dyna-Gro Seed	D50VC78		283.8	13.6	58.9	104	44	26-Jul	35,284
Dyna-Gro Seed	D51SS61		283.8	14.0	58.6	104	43	27-Jul	36,807
		Trial Mean	307.9	13.8	58.6	106	44	27-Jul	36,479
		LSD (0.05)	NS	NS	1.0	NS	NS		NS
		CV %	10.8	4.8	1.1	4.3	7.8		7.9
		F Test	0.2980	0.3349	0.0297	0.3434	0.3023		0.4953

Table 4A. New Mexico 2021 Full Season Grain Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Djaman, K. (PI), M.M. West, and D. Begay

Test Description

Location:

County/Area:	San Juan
Longitude:	-108.3061
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:	Pivot 6:
Planting Date:	19-May
Harvest Date:	29-Nov

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	68.8		1-Jul
Nitrogen	68.8		12-Jul
Nitrogen	68.8		16-Jul
Nitrogen	68.8		19-Jul
Total Nitrogen	275.0		
P_2O_5	0		
K_2O	0		
$ZnSO_4$	0		
Herbicides:			
		oz/a	
Bicep Mag II	2.1	qt/a	20-May
Super Spread MSO		oz/a	

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	30	0.37	
February	35	0.39	
March	41	0.66	
April	52	0.07	
May	61	0.02	2.0
June	73	0.21	8.3
July	77	0.36	11.9
August	73	0.37	7.4
September	66	0.83	4.7
October	52	0.35	0.8
November	44	0.09	
December	34	0.85	

Seasonal Precipitation	2.1 in.
Total Irrigation	35.1 in.
Date of Last Spring Frost:	24-May
Date of First Fall Frost:	13-Oct
Frost Free Period:	142 days

Table 4B. New Mexico 2021 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	D54VC14		347.5	15.6	57.7	112	50	29-Jul	36,699
Dyna-Gro Seed	D52DC82		341.2	15.8	57.1	112	49	28-Jul	34,957
Dyna-Gro Seed	D54SS34		337.0	15.6	58.9	108	48	29-Jul	35,066
Dyna-Gro Seed	D55VC80		331.9	15.8	59.1	112	48	29-Jul	37,135
Dyna-Gro Seed	D57TC29		317.1	16.0	58.3	110	48	29-Jul	37,462
Dyna-Gro Seed	D57VC17		311.3	16.1	57.5	113	50	29-Jul	34,630
Dyna-Gro Seed	D58VC65		310.3	15.2	58.8	106	47	28-Jul	36,808
Dyna-Gro Seed	D54SS74		293.4	16.1	58.5	106	46	29-Jul	37,679
Dyna-Gro Seed	D53TC19		275.6	16.2	59.0	114	50	28-Jul	33,922
		Trial Mean	318.4	15.8	58.3	110.3	48.4	28-Jul	36,040
		LSD (0.05)	NS	NS	NS	NS	NS		NS
		CV %	12.5	5.8	1.7	7.3	10.4		12.3
		F Test	0.2412	0.8553	0.0890	0.8024	0.8897		0.9124

Table 5A. New Mexico 2021 Grain Corn Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

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

Test Description

Location:

County/Area:	Quay
Longitude:	-103.68
Latitude:	35.20
Elevation:	4086 ft.
Soil Name:	Canez
Soil Texture:	Fine sandy loam
Soil Depth:	>60 in.

Test Design:

Replications:	4
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	30,000 seeds/ac

Management Practices:

Previous Crop:	Fallow
Planting Date:	28-Jun
Harvest Date:	20-Oct

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	0 lb/a	
P2O5	0 lb/a	
Herbicides:		
Roundup Power Max	3% vol/vol	1-Jul
Brimstone	4 pts/A	1-Jul
Bicep Lite II Magnum	2 qt/A	6-Jul

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	39	0.18	
February	36	0.10	
March	50	1.52	
April	57	0.13	
May	67	2.12	
June	78	1.22	0.00
July	77	6.51	0.00
August	79	2.19	0.00
September	75	0.55	0.00
October	62	0.98	
November			
December			

Seasonal Precipitation	13.6 in.
Total Seasonal Irrigation	0.0 in.
Date of Last Spring Frost:	21-Apr
Date of First Fall Frost:	12-Nov
Frost Free Period:	205 days

Table 5B. New Mexico 2021 Grain Corn Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Relative Maturity	Grain Yield Adjusted to 15.5% Moisture	Moisture at Evaluation	Test wt.
			bu/ac	%	lb/bu
Dyna-Gro Seed	D58VC65	118	15.7	27.9	52.0
Dyna-Gro Seed	D51SS61	111	13.7	28.5	51.4
Dyna-Gro Seed	D45TC55	105	11.7	23.9	51.9
Dyna-Gro Seed	D48QZ22	108	11.6	24.8	54.9
Dyna-Gro Seed	D51VC41	111	10.4	20.1	51.3
Dyna-Gro Seed	D53TC19	113	10.3	23.1	58.1
Dyna-Gro Seed	D50VC09	109	10.1	20.0	48.6
Dyna-Gro Seed	D52DC82	112	8.7	27.5	51.4
Dyna-Gro Seed	D43SS81	103	6.4	17.3	51.9
Dyna-Gro Seed	D49SS70	109	6.1	24.6	51.6
Dyna-Gro Seed	D57TC29	117	6.1	28.4	53.9
Dyna-Gro Seed	D50VC78	110	5.6	23.0	52.6
Dyna-Gro Seed	D44SS54	104	2.4	29.2	49.5
Dyna-Gro Seed	D54SS74	114	1.9	29.8	47.1
Dyna-Gro Seed	D55VC80	115	1.1	25.9	51.5
Dyna-Gro Seed	D57VC17	117	0.7	45.2	41.6
		Trial Mean	7.5	24.9	51.9
		LSD P < 0.05	NS	6.8	5.2
		CV	63.5	8.0	3.6
		F Test	0.5818	0.0003	0.0007

Table 6A. New Mexico 2021 Irrigated Forage Corn Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, M. Lopez, S. Bustillos, 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:	alfalfa
Planting Date:	12-May
Harvest Date:	24-Aug

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	20 lb/a	25-Apr
Nitrogen	225 lb/a	23-Jul
P2O5	96 lb/a	25-Apr
Herbicides:		
Rifle	16 oz/a	13-Jun
Insecticides:		
None		

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	40.0	0.25	
February	41.4	0.27	
March	52.0	0.03	
April	58.2	1.30	1.55
May	70.9	1.00	4.12
June	80.0	4.31	8.74
July	78.2	1.71	9.93
August	77.8	1.91	3.61
September	74.4	0.39	
October	62.1	0.92	
November	51.2	0.09	
December	50.0	0.00	

Seasonal Precipitation	10.23 in.
Total Irrigation	27.94 in.
Date of Last Spring Frost:	1-Apr
Date of First Fall Frost:	29-Oct
Frost Free Period:	211 days

Table 6B. New Mexico 2021 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	ADF	NDF	Ash	TDN	NE_l	NFC	RFV
		t/a	t/a	%	%	%	%	%	%	Mcal/lb	%	
Dyna-Gro Seed	D57VC17	10.8	28.2	61.7	9.2	21.5	38.7	3.9	72.8	0.778	46.6	174
Bayer/Dekalb	DKC70-64	10.8	30.2	64.4	9.1	24.0	40.7	4.5	71.1	0.747	44.2	161
Wilbur-Ellis/Integra	Integra 6880 VT2P	10.3	28.0	63.2	7.6	24.8	41.5	3.5	70.5	0.737	45.7	156
Wilbur-Ellis/Integra	Integra CX001117 TRE	10.1	27.3	63.1	8.7	21.1	37.1	3.9	73.1	0.783	48.6	182
Bayer/Dekalb	DKC67-66	10.0	28.4	65.0	9.0	22.1	39.0	3.9	72.4	0.770	46.6	171
Dyna-Gro Seed	D55VC80	9.7	27.7	64.8	8.4	24.8	42.3	3.9	70.4	0.736	44.1	153
Wilbur-Ellis/Integra	Integra CX001118 VT2P	9.6	29.4	67.3	8.8	23.8	40.7	4.3	71.2	0.750	45.0	161
Wilbur-Ellis/Integra	Integra 9678 VT2P	9.4	26.3	63.9	9.2	23.4	40.4	4.2	71.4	0.754	44.6	163
Dyna-Gro Seed	D53TC19	9.3	25.7	63.7	8.8	23.1	39.9	4.2	71.7	0.758	45.6	166
Bayer/Dekalb	DKC61-80	9.3	25.6	63.6	8.2	25.3	42.2	4.4	70.1	0.730	43.9	153
Dyna-Gro Seed	D57TC29	9.1	24.5	62.6	8.2	22.9	39.6	3.8	71.8	0.760	46.7	168
Wilbur-Ellis/Integra	Integra 6695 TRE	9.0	25.6	64.8	9.3	21.1	37.3	4.1	73.1	0.782	47.7	181
Dyna-Gro Seed	D52DC82	9.0	24.0	62.4	7.7	22.4	37.9	3.9	72.1	0.766	49.2	176
Dyna-Gro Seed	D58VC65	9.0	25.9	65.5	7.9	24.2	41.0	3.6	70.9	0.744	46.0	161
Wilbur-Ellis/Integra	Integra 6621 SS	8.9	26.4	66.4	9.4	23.7	40.9	4.6	71.2	0.750	43.6	161
Wilbur-Ellis/Integra	Integra 6720 SS	8.7	23.8	63.4	8.8	22.6	38.9	4.2	72.0	0.764	46.6	171
Bayer/Dekalb	DKC64-44	8.7	23.4	62.8	8.4	22.5	38.8	3.8	72.1	0.765	47.5	172
Wilbur-Ellis/Integra	Integra 6811 VT2P	8.7	22.3	60.9	7.6	24.9	41.6	3.7	70.4	0.735	45.6	157
Dyna-Gro Seed	D58QC72	8.6	24.9	65.6	8.1	25.3	41.3	4.3	70.1	0.730	45.0	156
Wilbur-Ellis/Integra	Integra 6891 3110	8.6	23.0	63.0	7.2	27.5	44.0	4.1	68.6	0.703	43.7	143
Dyna-Gro Seed	D58VC90	8.1	25.2	68.0	7.7	25.3	41.6	4.1	70.1	0.730	45.1	156
Wilbur-Ellis/Integra	Integra 6641 SS	7.9	22.7	65.4	8.3	23.7	39.6	4.1	71.3	0.751	46.7	166
Dyna-Gro Seed	D54VC14	7.7	20.6	62.4	6.9	24.7	40.6	3.7	70.5	0.738	47.4	160
Wilbur-Ellis/Integra	Integra 6709 VT2P	7.4	27.8	72.3	7.3	22.6	37.5	4.1	72.0	0.763	49.7	177
	Trial Mean	9.1	25.7	64.4	8.3	23.6	40.1	4.0	71.3	0.751	46.1	164
	LSD (P < 0.05)	NS	4.8	NS	NS	NS	NS	NS	NS	NS	NS	NS
	CV	17.2	13.3	6.4	12.2	8.9	6.0	10.5	2.1	3.5	5.5	8.0
	F Test	0.2178	0.0171	0.1598	0.1197	0.0834	0.0929	0.2844	0.0858	0.0848	0.1621	0.0775

Table 7A. New Mexico 2021 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:	27,000 seed/a

Management Practices:

Previous Crop:	fallow
Planting Date:	20-May
Harvest Date:	31-Aug

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	15 lb/ac	carryover
Nitrogen	70 lb/ac	6-Apr
Zn	4 qt/ac	6-Apr
Phos	65 lb/ac	6-Apr
S	22 lb/ac	6-Apr
Nitrogen	91.2 lb/ac	21-May
Sulfur	16.5 lb/ac	21-May
Herbicides:		
Roundup PowerMax	1 qt/ac	7-Apr
DiFlexx	8 oz/ac	7-Apr
Panther	20 oz/ac	7-Apr
Roundup PowerMax	1 qt/ac	21-May
Atrazine	2 pt/ac	21-May
Balance Flex	2 oz/ac	21-May
Warrant	2 qt/ac	21-May
DiFlexx	8 oz/ac	23-Jun
Warrant	2 qt/ac	23-Jun
Insecticides:		
Prevathon	14 oz/ac	23-Jun
Oberon	8 oz/ac	23-Jun
Onager	16 oz/ac	5-Aug
Prevathon	20 oz/ac	5-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	36.4	0.17	
February	35.4	0.06	
March	47.3	0.06	
April	53.6	0.22	7.50
May	64.1	1.17	3.30
June	74.9	3.95	2.20
July	74.0	5.59	4.10
August	74.0	2.24	3.10
September			
October			
November			
December			

Seasonal Precipitation:	13.2 in.
Total Irrigation:	20.2 in.
Date of Last Spring Frost:	22-Apr
Date of First Fall Frost:	20-Oct
Frost Free Period:	181 days

Table 7B. New Mexico 2021 Forage Corn Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage	65% Green Forage	Moisture at Harvest	CP	ADF	NDF	NDFD 30hr	Starch	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
		t/a	t/a	%	%	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	D57TC29	8.7	24.8	72.0	8.0	27.0	49.9	54.3	16.8	4.8	64.7	0.665	3143	27239
Dyna-Gro Seed	D54VC14	8.6	24.6	72.8	8.8	28.0	50.1	51.1	17.4	5.0	66.0	0.679	3223	27803
Bayer/Dekalb	DKC61-80	8.6	24.6	69.9	8.9	24.8	46.0	53.2	21.6	4.8	66.5	0.684	3248	27903
BH Genetics	BH 8704VIP3110	8.6	24.5	73.5	9.1	25.8	47.9	52.9	17.7	4.7	64.6	0.663	3113	26675
BH Genetics	X21042	8.6	24.4	73.0	8.9	26.4	48.1	53.1	19.4	4.6	65.8	0.677	3197	27326
Wilbur-Ellis/Integra	Integra 6891 3110	8.5	24.2	72.3	9.4	26.1	48.1	52.7	17.2	5.1	64.6	0.663	3112	26400
Dyna-Gro Seed	D58VC65	8.5	24.2	70.7	9.7	24.3	46.3	53.9	21.0	4.4	67.3	0.693	3312	27990
Dyna-Gro Seed	D55VC80	8.4	24.0	72.7	8.3	27.2	50.1	53.8	18.8	4.5	66.8	0.688	3293	27685
Wilbur-Ellis/Integra	Integra 6880 VT2P	8.3	23.8	72.9	9.0	25.8	47.2	53.1	20.6	4.7	66.5	0.685	3251	27060
Wilbur-Ellis/Integra	Integra 6641 SS	8.3	23.6	74.1	8.8	25.5	47.0	51.7	20.8	4.5	65.6	0.675	3182	26305
Bayer/Dekalb	DKC70-64	8.3	23.6	73.6	9.4	28.1	50.5	51.3	16.6	4.9	65.4	0.673	3171	26218
BH Genetics	BY 8705VIP3110	8.2	23.6	72.9	8.8	26.5	48.9	53.6	18.4	4.9	65.9	0.678	3217	26534
Wilbur-Ellis/Integra	Integra 6695 TRE	8.2	23.5	73.0	8.7	25.4	46.4	53.3	24.0	4.6	68.9	0.711	3437	28306
Dyna-Gro Seed	D57VC17	8.2	23.5	71.6	9.4	25.7	46.6	51.3	20.7	5.1	65.9	0.678	3198	26323
Wilbur-Ellis/Integra	Integra 6720 SS	8.2	23.4	71.7	9.1	25.7	47.3	52.8	21.0	4.6	66.9	0.689	3283	26919
Wilbur-Ellis/Integra	Integra CX001117 TRE	8.2	23.4	73.5	8.7	24.8	46.2	54.0	22.5	4.4	67.0	0.690	3291	26977
BH Genetics	BH 8732VT2P	8.2	23.4	72.0	9.1	24.1	44.1	52.8	24.4	4.7	67.7	0.698	3331	27231
Dyna-Gro Seed	D53TC19	8.2	23.3	73.2	8.9	28.2	51.1	52.4	16.7	4.8	65.7	0.676	3195	26105
Dyna-Gro Seed	D58VC90	8.1	23.3	73.3	8.5	25.8	46.6	54.9	23.7	4.6	68.6	0.708	3413	27805
Bayer/Dekalb	DKC67-66	8.1	23.3	72.5	8.8	26.9	49.4	53.3	18.6	4.5	66.0	0.679	3214	26165
BH Genetics	BH 8703VIP3110	8.0	23.0	71.8	8.8	26.2	48.6	53.2	19.9	4.6	67.0	0.689	3290	26460
Wilbur-Ellis/Integra	Integra CX001118 VT2P	8.0	22.9	73.6	8.8	27.4	49.6	52.1	15.9	5.5	63.7	0.653	3050	24451
BH Genetics	BH 8400PCE	8.0	22.9	74.0	8.2	25.8	46.3	52.1	23.8	5.0	67.6	0.696	3329	26665
Dyna-Gro Seed	D52DC82	8.0	22.8	74.4	8.1	26.9	48.2	54.2	21.0	4.9	67.2	0.692	3311	26378
BH Genetics	XP 8670TRE	7.9	22.7	72.9	8.7	26.5	48.8	51.2	20.2	4.5	66.4	0.684	3245	25738
Wilbur-Ellis/Integra	Integra 6709 VT2P	7.9	22.6	73.1	8.5	26.9	49.5	52.9	17.9	4.7	65.4	0.672	3178	25078
BH Genetics	X20044VIP3110	7.9	22.4	71.6	9.0	25.8	47.4	52.4	20.9	4.6	66.9	0.689	3284	25801
Wilbur-Ellis/Integra	Integra 6811 VT2P	7.8	22.4	72.2	9.0	26.3	48.2	52.4	21.8	4.4	68.2	0.703	3371	26459
Wilbur-Ellis/Integra	Integra 6621 SS	7.8	22.3	73.6	9.4	26.0	46.8	51.3	20.8	5.0	66.3	0.682	3223	25124
Wilbur-Ellis/Integra	Integra 9678 VT2P	7.8	22.2	74.1	9.5	27.3	49.1	50.3	19.0	5.0	66.4	0.683	3232	25137
Dyna-Gro Seed	D58QC72	7.7	22.0	72.2	9.1	26.2	47.6	54.7	20.6	4.8	68.5	0.706	3413	26347
BH Genetics	BH 8690VIP3111	7.7	22.0	72.9	9.0	26.4	47.9	50.8	20.9	4.9	67.1	0.691	3289	25283
Bayer/Dekalb	DKC64-44	7.7	21.9	71.9	8.7	25.4	46.6	52.7	22.4	4.3	67.6	0.697	3338	25618
	Trial Mean	8.2	23.3	72.7	8.9	26.2	47.9	52.7	20.1	4.7	66.5	0.685	3254	26530
	LSD	0.5	1.5	1.4	0.6	2.0	2.6	1.5	3.0	NS	2.0	0.022	146	NS
	LSD P >	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	CV	4.0	4.0	1.2	4.3	4.6	3.4	1.8	9.2	8.0	1.8	2.0	2.7	5.3
	F Test	0.0019	0.0019	<0.0001	<0.0001	0.0061	0.0002	<0.0001	<0.0001	0.1614	<0.0001	<0.0001	<0.0001	0.1550

Table 8A. New Mexico 2021 Forage Corn Performance Test - Agricultural Science Center at Farmington

Investigators: Djaman, K. (PI), M.M. West, and D. Begay

Test Description

Location:

County/Area:	San Juan
Longitude:	-108.3061
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:	36,569 seeds/a
Harvest area:	1 row 10 feet long

Management Practices:

Previous Crop:	Pivot 6:
Planting Date:	19-May
Harvest Date:	23-Sep

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen	68.75		1-Jul
Nitrogen	68.75		12-Jul
Nitrogen	68.75		16-Jul
Nitrogen	68.75		19-Jul
Total Nitrogen	275		
P_2O_5	0		
K_2O	0		
$ZnSO_4$	0		
Herbicides:			
		oz/a	
Bicep Mag II	2.1	qt/a	20-May
Super Spread MSO		oz/a	

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	30	0.37	
February	35	0.39	
March	41	0.66	
April	52	0.07	
May	61	0.02	2.0
June	73	0.21	8.3
July	77	0.36	11.9
August	73	0.37	7.4
September	66	0.51	4.0
October	52	0.35	
November	44	0.09	
December	34	0.85	

Seasonal Precipitation	1.5 in.
Total Irrigation	33.5 in.

Date of Last Spring Frost:	24-May
Date of First Fall Frost:	13-Oct
Frost Free Period:	142 days

Table 8B. New Mexico 2021 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	D58QC72	16.0	37.9	57.8	102	43	7.6	39.4	62.1	33.8	4.2	66.6	2,893	46,192
Dyna-Gro Seed	D55VC80	15.8	42.9	63.2	101	41	8.2	41.2	62.0	30.4	3.9	66.7	2,900	46,059
Dyna-Gro Seed	D52DC82	14.5	39.6	63.4	98	44	7.9	42.2	63.5	29.8	4.4	66.4	2,856	41,423
Dyna-Gro Seed	D58VC65	13.7	36.2	62.1	99	42	7.9	42.2	63.8	27.9	4.3	65.2	2,759	37,788
Dyna-Gro Seed	D53TC19	13.5	37.5	63.7	105	45	7.8	42.2	62.7	29.4	4.4	65.8	2,815	37,874
Dyna-Gro Seed	D58VC90	13.0	33.4	61.2	100	45	8.0	40.2	62.6	31.6	4.3	66.5	2,874	37,433
Dyna-Gro Seed	D57VC17	12.7	35.3	64.2	102	42	7.5	41.3	63.3	31.6	4.0	67.0	2,907	36,953
Dyna-Gro Seed	D54VC14	11.7	31.5	62.5	97	40	7.9	41.6	63.7	30.4	4.0	66.8	2,892	33,982
Dyna-Gro Seed	D57TC29	11.4	30.4	62.1	94	42	7.9	40.3	62.9	33.5	4.1	66.6	2,888	32,827
	Trial Mean	13.6	36.1	62.2	100	43	7.9	41.2	63.0	30.9	4.2	66.4	2,865	38,948
	LSD (0.05)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	CV %	23.1	22.5	4.1	6.6	11.2	5.7	6.6	1.7	11.2	9.2	1.6	3.1	23.2
	F Test	0.4172	0.4943	0.0571	0.4799	0.8993	0.5955	0.7907	0.2238	0.3417	0.4503	0.4079	0.3282	0.3954

Table 9A. New Mexico 2021 Forage Corn Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

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

Test Description

Location:

County/Area:	Quay
Longitude:	-103.68
Latitude:	35.20
Elevation:	4086 ft.
Soil Name:	Canez
Soil Texture:	Fine sandy loam
Soil Depth:	>60 in.

Test Design:

Replications:	4
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	30,000 seeds/ac

Management Practices:

Previous Crop: Fallow
Planting Date: 2-Jul
Harvest Date: 6-Oct

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	0 lb/a	
P2O5	0 lb/a	
Herbicides:		
Roundup Power Max	3% vol/vol	1-Jul
Brimstone	4 pts/A	1-Jul
Bicep Lite II Magnum	2 qt/A	6-Jul

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	39	0.18	0.00
February	36	0.10	0.00
March	50	1.52	0.00
April	57	0.13	0.00
May	67	2.12	0.00
June	78	1.22	0.00
July	77	6.51	0.00
August	79	2.19	0.00
September	75	0.55	0.00
October	62	0.98	0.00
November			
December			

Seasonal Precipitation 11.5 in.
Total Seasonal Irrigation 0.0 in.

Date of Last Spring Frost: 21-Apr
Date of First Fall Frost: 12-Nov
Frost Free Period: 205 days

Table 9B. New Mexico 2021 Forage Corn Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Dry Forage	65% Moisture Adj. 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
Bayer/Dekalb	DKC67-66	0.6	1.5	57.6	10.8	67.1	48.8	2.5	4.3	61.7	0.488	1849	971
Wilbur-Ellis/Integra	Integra 6695 TRE	0.6	1.5	64.6	11.3	63.6	53.5	2.6	3.8	64.6	0.507	2005	1045
Wilbur-Ellis/Integra	Integra CX001118 VT2	0.6	1.7	59.7	10.7	65.3	51.8	2.2	4.7	62.6	0.488	1871	1023
Dyna-Gro Seed	D52DC82	0.5	1.1	55.5	11.0	68.5	51.8	1.1	4.2	61.0	0.505	1983	924
Dyna-Gro Seed	D53TC19	0.5	1.2	57.6	10.7	67.5	51.0	1.2	4.0	61.4	0.496	1919	969
Dyna-Gro Seed	D57TC29	0.5	1.2	59.6	10.5	68.7	52.3	1.0	3.8	61.1	0.503	1971	951
Dyna-Gro Seed	D58VC65	0.5	1.1	53.6	11.4	68.2	47.8	1.0	5.2	60.1	0.490	1855	925
Dyna-Gro Seed	D58VC90	0.5	1.4	59.7	10.1	66.0	49.0	2.0	4.5	62.1	0.478	1789	924
Bayer/Dekalb	DKC70-64	0.5	1.4	51.9	11.1	68.1	50.0	1.0	4.6	60.8	0.488	1859	1010
Wilbur-Ellis/Integra	Integra 6621 SS	0.5	1.2	53.3	11.0	68.4	51.5	2.6	4.1	61.2	0.498	1937	904
Wilbur-Ellis/Integra	Integra 6811 VT2P	0.5	1.3	58.1	10.3	66.1	48.8	1.9	4.6	61.5	0.478	1788	847
Wilbur-Ellis/Integra	Integra 9678 VT2P	0.5	1.1	54.4	12.0	67.0	50.3	1.2	5.2	61.0	0.492	1886	882
Dyna-Gro Seed	D54VC14	0.4	1.0	52.8	10.6	69.0	49.0	1.2	4.4	60.5	0.479	1799	755
Dyna-Gro Seed	D55VC80	0.4	1.0	53.1	10.8	69.1	51.5	1.4	4.7	60.9	0.497	1930	817
Dyna-Gro Seed	D57VC17	0.4	1.0	57.7	10.9	67.6	51.5	1.2	4.0	62.4	0.505	1981	781
Dyna-Gro Seed	D58QC72	0.4	1.0	64.0	11.0	67.9	52.3	0.7	4.8	61.9	0.505	1981	731
Bayer/Dekalb	DKC61-80	0.4	0.8	48.6	11.2	70.7	49.5	0.7	4.5	59.7	0.493	1886	726
Bayer/Dekalb	DKC64-44	0.4	0.7	51.0	11.3	68.3	48.3	1.4	4.5	61.0	0.488	1847	667
Wilbur-Ellis/Integra	Integra 6641 SS	0.4	0.8	52.6	11.8	68.7	48.0	0.4	5.1	60.4	0.493	1880	738
Wilbur-Ellis/Integra	Integra 6891 3110	0.4	1.1	56.4	12.9	68.2	54.3	0.1	5.2	62.1	0.522	2110	908
Wilbur-Ellis/Integra	Integra CX001117 TRE	0.4	1.1	60.8	9.8	67.4	52.0	1.4	4.0	61.6	0.486	1862	781
Wilbur-Ellis/Integra	Integra 6709 VT2P	0.3	0.8	53.6	10.5	68.2	50.3	1.4	4.8	61.1	0.493	1895	585
Wilbur-Ellis/Integra	Integra 6720 SS	0.3	0.7	53.1	11.4	69.9	51.5	0.5	4.5	60.9	0.507	1991	600
Wilbur-Ellis/Integra	Integra 6880 VT2P	0.3	1.0	59.1	11.7	69.9	49.5	0.5	4.3	61.2	0.498	1923	686
Trial Mean		0.4	1.1	56.2	11.0	67.9	50.6	1.3	4.5	61.4	0.494	1908	840
LSD P < 0.05		NS	NS	NS	NS	NS	3.8	NS	NS	NS	NS	178	NS
CV		60.4	67.8	15.6	17.4	4.9	5.4	120.5	15.4	3.4	3.6	6.6	57.6
F Test		0.9967	0.9771	0.6479	0.9739	0.6225	0.0566	0.7279	0.0802	0.5939	0.1638	0.1017	0.9989

Table 10A. New Mexico 2021 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:	8-Jun
Harvest Date:	28-Oct

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	30 lb/ac	carryover
Nitrogen	50 lb/ac	6-Apr
Phosphorus	30 lb/ac	6-Apr
S	7.4 lb/ac	6-Apr
Chelated Zn	2 qt/ac	6-Apr
Herbicides:		
Atrazine	1.5 pt/ac	9-Jun
Warrant	2 qt/ac	9-Jun
Buccaneer	1.5 qt/ac	9-Jun
Sharpen	1.5 oz/ac	9-Jun
Huskie	1 pt/ac	14-Jul
Atrazine	1 pt/ac	14-Jul
Warrant	1.5 qt/ac	14-Jul
Insecticides:		
Onager	8 oz/ac	16-Aug
Oberon	8 oz/ac	16-Aug
Prevathon	14 oz/ac	16-Aug
Sivanto	7 oz/ac	16-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	36.4	0.17	
February	35.4	0.06	
March	47.3	0.06	
April	53.6	0.22	4.0
May	64.1	1.17	
June	74.9	3.95	
July	74.0	5.59	
August	74.0	2.24	
September	73.0	0.86	
October 1-28	66.0	0.00	
November			
December			

Seasonal Precipitation:	14.0 in.
Total Irrigation:	4.0 in.
Date of Last Spring Frost:	22-Apr
Date of First Fall Frost:	20-Oct
Frost Free Period:	181 days

Table 10B. New Mexico 2021 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Relative Maturity	Grain Yield	Grain Yield	Moisture at Harvest	Test Weight
			lb/a	bu/a	%	lb/bu
Dyna-Gro Seed	M72GB71	MF	6101	109.0	7.2	61.1
Sorghum Partners	251	E	5958	106.4	7.5	60.1
Dyna-Gro Seed	GX21965	MF	5332	95.2	7.7	61.1
Dyna-Gro Seed	GX20970	MF	5243	93.7	6.7	60.7
Dyna-Gro Seed	M60GB31	ME	5088	90.9	7.3	60.1
Dyna-Gro Seed	M67GB87	M	5026	89.8	7.0	59.5
Dyna-Gro Seed	GX20998	M	4918	87.8	6.3	58.8
Sorghum Partners	SP 43M80	ME	4743	84.7	8.1	61.1
Dyna-Gro Seed	GX20973	ME	4647	83.0	7.4	60.4
Dyna-Gro Seed	M59GB94	E	4617	82.5	7.2	61.2
Dyna-Gro Seed	M59GB57	E	4566	81.5	6.8	58.7
Dyna-Gro Seed	M63GB78	M	4551	81.3	5.5	60.2
Dyna-Gro Seed	M60GB88	ME	4529	80.9	7.2	59.2
Sorghum Partners	SP 68M57	M	4470	79.8	6.1	59.1
Dyna-Gro Seed	M71GR91	MF	4305	76.9	6.1	61.3
Dyna-Gro Seed	M54GR24	VE	3190	57.0	6.4	59.1
Sorghum Partners	SP 25C10	E	2734	48.8	6.7	57.4
		Trial Mean	4707	84.0	6.9	59.9
		LSD (P > 0.05)	NS	NS	NS	NS
		CV	17.8	17.8	11.2	1.8
		F Test	0.0965	0.0965	0.2251	0.0854

Table 11A. New Mexico 2021 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, 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:	63,000 seed/a

Management Practices:

Previous Crop:	cotton
Planting Date:	23-Jun
Harvest Date:	24-Aug

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	100 lb/a	25-Apr
Nitrogen	100 lb/a	23-Jul
P_2O_5	96 lb/a	25-Apr

Herbicides:

None

Insecticides:

None

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	40.0	0.25	
February	41.4	0.27	
March	52.0	0.03	
April	58.2	1.30	1.55
May	70.9	1.00	4.12
June	80.0	4.31	8.74
July	78.2	1.71	9.93
August	77.8	1.91	3.61
September	74.4	0.39	
October	62.1	0.92	
November	51.2	0.09	
December	50.0	0.00	

Seasonal Precipitation	10.23 in.
Total Irrigation	27.94 in.
Date of Last Spring Frost:	1-Apr
Date of First Fall Frost:	29-Oct
Frost Free Period:	211 days

Table 11B. New Mexico 2021 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	Green Forage	Moisture at Harvest	CP	ADF	NDF	NDFD 30hr	IVTDMD	Ash	TDN	NE_l	RFQ
					t/a	t/a	%	%	%	%	%	%	%	%	Mcal/lb	
Dyna-Gro Seed	5 Star	FS	ME	N	6.0	16.0	62.3	5.1	30.9	50.0	58.8	79.1	6.2	67.4	0.696	118
Dyna-Gro Seed	F72FS05	FS	ME	N	6.0	17.8	66.3	4.5	36.3	61.9	54.5	72.3	7.3	61.1	0.626	91
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	5.9	20.8	70.7	4.0	34.7	57.3	63.8	77.4	8.4	63.0	0.647	101
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	5.7	17.3	66.8	5.6	34.7	58.1	59.3	74.5	8.8	63.0	0.647	105
Dyna-Gro Seed	Sweet Ton	FS	MF	N	5.7	15.0	62.3	6.0	27.4	44.6	66.5	83.8	5.9	71.3	0.740	143
Dyna-Gro Seed	FX21865	FS	MF	N	5.6	15.1	62.8	5.0	34.9	58.0	54.3	72.6	8.6	62.8	0.644	94
Dyna-Gro Seed	Super Sile 20	FS	MF	N	5.4	17.3	69.0	5.0	34.6	58.2	53.3	73.2	7.2	63.1	0.649	97
Dyna-Gro Seed	Super Sile 30	FS	ME	N	5.1	16.6	69.3	3.9	36.5	61.5	54.8	73.0	7.0	60.9	0.624	89
Dyna-Gro Seed	GX20998	GS	M		5.1	10.9	52.9	6.4	31.1	51.5	50.5	73.9	8.2	67.1	0.693	106
Dyna-Gro Seed	M72GB71	GS	MF		5.1	11.8	57.0	6.9	32.4	53.4	51.0	73.1	8.4	65.6	0.676	107
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	5.0	12.9	61.7	6.3	29.9	49.7	62.3	79.2	6.6	68.5	0.709	132
Dyna-Gro Seed	GX21965	GS	MF		4.9	11.3	58.6	6.9	32.6	53.3	50.8	73.1	9.1	65.4	0.674	105
Dyna-Gro Seed	F74FS72 BMR	FS	MF	Y	4.9	13.8	64.2	4.3	35.7	59.0	59.8	74.7	8.3	61.9	0.635	97
Dyna-Gro Seed	M63GB78	GS	M		4.5	9.8	54.4	7.1	32.2	52.8	51.5	73.5	8.8	65.8	0.679	108
Dyna-Gro Seed	FX21815	FS	ME	N	4.5	9.7	53.7	6.8	31.4	52.2	52.0	74.2	8.1	66.7	0.688	111
Dyna-Gro Seed	GX20970	GS	MF		4.3	8.9	51.7	6.2	32.5	52.7	51.3	73.3	9.0	65.5	0.675	102
Dyna-Gro Seed	M60GB31	GS	ME		4.2	9.2	57.8	8.1	29.4	50.5	46.5	73.2	6.9	69.0	0.714	117
Dyna-Gro Seed	FX21842	FS	MF	N	4.2	13.7	69.5	3.2	36.6	61.9	56.5	74.3	6.9	60.8	0.623	85
Dyna-Gro Seed	GX20973	GS	ME		4.1	8.7	54.9	6.3	29.6	48.2	50.8	74.6	8.1	68.8	0.712	109
Dyna-Gro Seed	M59GB94	GS	E		4.0	8.7	53.5	5.9	32.7	53.1	52.8	74.1	8.6	65.3	0.673	103
Dyna-Gro Seed	M71GR91	GS	MF		4.0	9.1	57.3	6.5	31.7	51.0	52.8	75.3	8.2	66.4	0.685	111
Dyna-Gro Seed	M60GB88	GS	ME		3.8	7.4	52.1	5.7	31.8	52.3	48.5	73.1	7.4	66.4	0.684	101
Mojo Seed	Pearl	FS	M	N	3.7	11.0	65.4	5.0	34.5	57.3	60.8	76.6	7.8	63.2	0.649	107
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	3.7	10.3	64.1	5.7	35.2	57.9	62.8	77.6	8.1	62.4	0.641	115
Dyna-Gro Seed	GX20987 (M67GB87)	GS	M		3.5	8.0	57.8	6.0	30.8	49.4	52.5	76.0	8.4	67.5	0.697	110
Dyna-Gro Seed	M54GR24	GS	VE		3.0	6.4	52.8	7.8	32.1	51.0	47.8	73.2	9.3	66.0	0.680	108
Dyna-Gro Seed	M59GB57	GS	E		2.8	5.5	52.5	7.5	29.9	48.7	47.3	75.1	7.8	68.5	0.708	114
			Trial Mean		4.6	12.0	59.9	5.8	32.7	53.9	54.5	75.0	7.9	65.3	0.673	107
			LSD (P < 0.05)		1.5	4.8	4.5	1.4	3.4	5.2	4.6	2.9	1.6	3.8	0.043	15
			CV		13.8	18.4	5.3	17.8	7.3	6.9	6.1	2.8	14.2	4.2	4.5	10.1
			F Test		0.0004	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	<0.0001	<0.0001

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

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

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

Table 12A. New Mexico 2021 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 seed/a

Management Practices:

Previous Crop:	fallow
Planting Date:	24-May
Harvest Date:	14-Sep

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	10 lb/ac	carryover
Nitrogen	55 lb/ac	6-Apr
Phos	30 lb/ac	6-Apr
S	8.3 lb/ac	6-Apr
Chelated Zn	2 qt/ac	6-Apr
Nitrogen	45.6 lb/ac	25-May
Sulfur	8.3 ib/ac	25-May
Herbicides:		
Atrazine	1.5 pt/ac	25-May
Warrant	2 qt/ac	25-May
Glyphosate	1.5 qt/ac	25-May
Huskie	1 pt/ac	14-Jul
Atrazine	1 pt/ac	14-Jul
Warrant	1.5 qt/ac	14-May
Insecticides:		
Onager	8 oz/ac	16-Aug
Oberon	8 oz/ac	16-Aug
Prevathon	14 oz/ac	16-Aug
Sivanto	7 oz/ac	16-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	36.4	0.17	
February	35.4	0.06	
March	47.3	0.06	
April	53.6	0.22	8.00
May	64.1	1.17	1.00
June	74.9	3.95	1.00
July	74.0	5.59	1.00
August	74.0	2.24	1.90
September	73.0	0.86	0.00
October			
November			
December			

Seasonal Precipitation:	14.0 in.
Total Irrigation:	12.9 in.
Date of Last Spring Frost:	22-Apr
Date of First Fall Frost:	20-Oct
Frost Free Period:	181 days

Table 12B. New Mexico 2021 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis - Results

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum Type	Maturity Group	Brown Midrib	Dry Forage	Green Forage	Moisture at Harvest	CP	ADF	NDF	NDFD 30hr	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
					t/a	t/a	%	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	5 Star	FS	ME	N	10.5	30.1	60.8	7.4	32.3	53.3	56.3	5.5	66.7	0.687	3285	34616
Sorghum Partners	SS405	FS	MF	N	10.3	29.3	65.1	7.2	34.4	57.5	52.0	4.8	65.9	0.678	3217	33041
Dyna-Gro Seed	Super Sile 20	FS	MF	N	9.7	27.6	64.7	7.5	31.9	53.2	53.5	5.6	66.0	0.679	3222	31156
Dyna-Gro Seed	Super Sile 30	FS	ME	N	9.6	27.5	63.8	7.0	32.6	54.7	53.5	5.6	65.0	0.668	3158	30404
Dyna-Gro Seed	F72FS05	FS	ME	N	9.4	26.9	61.0	7.6	31.2	52.9	55.2	4.7	68.0	0.701	3374	31713
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	9.0	25.8	54.0	8.0	28.9	48.5	59.1	5.5	70.1	0.725	3566	32234
Wilbur-Ellis	Integra 38F80	FS	ML	N	8.6	24.6	64.7	8.0	32.3	52.9	54.5	5.8	68.4	0.705	3409	29400
Mojo Seed	Opal	FS	ML	N	8.6	24.5	62.3	7.2	33.4	55.1	55.0	6.2	68.5	0.707	3425	29290
Dyna-Gro Seed	FX21842	FS	MF	N	8.5	24.2	65.5	7.9	32.2	53.2	54.7	5.9	68.0	0.701	3387	28739
Dyna-Gro Seed	Sweet Ton MS	FS	MF	N	8.4	24.1	66.5	7.3	29.4	49.8	57.2	5.4	65.5	0.673	3205	27031
Wilbur-Ellis	Integra 34F95	FS	ME	Y	8.3	23.8	64.9	8.2	27.8	48.8	60.7	4.9	68.4	0.706	3443	28585
Sorghum Partners	NK300	FS	ME	N	7.8	22.2	65.6	7.6	33.3	54.0	53.8	5.5	67.9	0.700	3370	26181
Sorghum Partners	SP 3905 BD BMR	FS	ME	Y	7.7	21.9	61.3	8.1	29.6	48.3	59.1	5.0	71.0	0.735	3635	27879
Wilbur-Ellis	Integra 33F70	FS	L	Y	7.2	20.4	64.8	8.2	31.4	51.6	55.8	5.8	69.4	0.717	3513	25197
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	7.1	20.2	68.6	8.1	33.2	53.5	56.8	6.5	68.7	0.709	3458	24389
Sorghum Partners	SP 3904 BD BMR	FS	MF	Y	6.6	19.0	66.6	8.5	31.3	50.8	57.5	6.5	68.6	0.708	3451	22910
Mojo Seed	Pearl	FS	M	N	6.6	19.0	70.5	8.8	31.3	54.4	53.2	4.9	66.1	0.680	3238	21488
Dyna-Gro Seed	FX21865	FS	MF	N	6.5	18.7	62.8	7.6	35.3	55.3	57.6	6.8	69.3	0.716	3511	22971
Dyna-Gro Seed	F74FS72 BMR	FS	MF	Y	5.7	16.3	70.6	9.1	32.4	52.2	54.3	6.4	68.4	0.706	3431	19561
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	5.7	16.2	65.7	7.8	31.6	51.3	57.4	5.8	69.8	0.721	3544	20069
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	5.6	16.0	69.0	6.6	32.3	51.1	57.6	6.6	68.6	0.708	3450	19355
Dyna-Gro Seed	FX21815	FS	ME	N	5.5	15.8	65.7	8.1	34.2	55.1	55.6	6.6	67.6	0.697	3370	18630
			Trial Mean		7.9	22.5	64.7	7.8	31.9	52.6	55.9	5.7	68.0	0.701	3394	26584
			LSD		0.9	2.7	2.0	0.9	NS	4.6	2.4	1.1	2.5	0.028	186	3753
			LSD P >		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
			CV		7.3	7.3	1.9	6.8	7.7	5.3	2.6	11.6	2.3	2.4	3.3	8.6
			F Test		<0.0001	<0.0001	<0.0001	0.0002	0.0816	0.0141	<0.0001	0.0030	0.0008	0.0008	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, L = Late, PS = Photoperiod Sensitive

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

Table 13A. New Mexico 2021 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:	50,000 seed/a

Management Practices:

Previous Crop:	fallow
Planting Date:	8-Jun
Harvest Date:	14-Sep

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	30 lb/ac	carryover
Nitrogen	50 lb/ac	6-Apr
Phosphorus	30 lb/ac	6-Apr
S	7.4 lb/ac	6-Apr
Chelated Zn	2 qt/ac	6-Apr
Herbicides:		
Atrazine	1.5 pt/ac	9-Jun
Warrant	2 qt/ac	9-Jun
Buccaneer	1.5 qt/ac	9-Jun
Sharpon	1.5 oz/ac	9-Jun
Huskie	1 pt/ac	14-Jul
Atrazine	1 pt/ac	14-Jul
Warrant	1.5 qt/ac	14-Jul
Insecticides:		
Onager	8 oz/ac	16-Aug
Oberon	8 oz/ac	16-Aug
Prevathon	14 oz/ac	16-Aug
Sivanto	7 oz/ac	16-Aug

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	36.4	0.17	
February	35.4	0.06	
March	47.3	0.06	
April	53.6	0.22	4.00
May	64.1	1.17	
June	74.9	3.95	
July	74.0	5.59	
August	74.0	2.24	
September	73.0	0.86	
October			
November			
December			

Seasonal Precipitation:	14.0 in.
Total Irrigation:	4.0 in.
Date of Last Spring Frost:	22-Apr
Date of First Fall Frost:	20-Oct
Frost Free Period:	181 days

Table 13B. New Mexico 2021 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis - Results

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum Type	Maturity Group	Brown Midrib	Dry Forage	Green Forage	Moisture at Harvest	CP	ADF	NDF	NDFD 30hr	Ash	TDN	NE_l	Milk/ Ton	Milk/ Acre
					t/a	t/a	%	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	Super Sile 30	FS	ME	N	5.5	15.8	68.1	8.4	28.2	50.7	55.8	6.6	64.9	0.667	3178	17547
Dyna-Gro Seed	5 Star	FS	ME	N	5.2	14.7	67.0	7.9	29.0	51.9	57.2	5.6	68.9	0.712	3456	17804
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	4.9	14.0	58.9	8.1	29.7	51.8	57.3	6.3	69.1	0.714	3491	17037
Dyna-Gro Seed	Super Sile 20	FS	MF	N	4.8	13.6	67.5	8.7	28.3	50.8	54.6	5.9	66.0	0.679	3245	15490
Dyna-Gro Seed	F72FS05	FS	ME	N	4.8	13.6	64.3	9.2	28.8	51.4	53.6	5.7	65.1	0.669	3174	15109
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	4.6	13.0	63.1	8.7	29.3	51.8	54.7	5.8	67.6	0.697	3358	15315
Dyna-Gro Seed	FX21842	FS	MF	N	4.5	12.9	67.1	8.9	30.0	53.0	55.3	6.3	68.5	0.707	3430	15468
Mojo Seed	Pearl	FS	M	N	4.5	12.8	65.8	9.2	32.0	52.2	55.9	5.8	67.0	0.691	3318	14910
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	4.4	12.6	67.9	9.1	27.5	49.7	58.1	4.7	70.9	0.734	3624	15959
Dyna-Gro Seed	F74FS72 BMR	FS	MF	Y	4.3	12.3	69.6	9.1	26.9	48.9	54.2	4.9	66.5	0.685	3280	14145
Dyna-Gro Seed	Sweet Ton MS	FS	MF	N	4.3	12.2	64.9	8.0	27.1	49.2	57.5	4.6	69.6	0.719	3502	14888
Dyna-Gro Seed	FX21865	FS	MF	N	4.1	11.7	65.6	9.6	27.7	49.7	57.3	5.9	69.3	0.716	3498	14237
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	3.7	10.7	66.4	8.8	27.2	48.1	55.3	5.7	66.8	0.688	3306	12389
Dyna-Gro Seed	FX21815	FS	ME	N	3.6	10.2	65.5	9.1	30.1	52.9	55.6	5.8	67.3	0.693	3330	11882
	Trial Mean				4.5	12.9	65.8	8.8	28.7	51.0	55.9	5.7	67.7	0.698	3371	15155
	LSD				0.5	1.4	1.2	NS	NS	NS	NS	NS	NS	NS	NS	1776
	LSD P >				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	CV				6.6	6.6	1.0	8.9	8.1	4.4	4.0	14.3	3.6	3.9	5.5	7.0
	F Test				<0.0001	<0.0001	<0.0001	0.3112	0.3787	0.2263	0.3590	0.1622	0.1530	0.1518	0.1571	<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, L = Late, PS = Photoperiod Sensitive

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

Table 14A. New Mexico 2021 Forage Sorghum Performance Test - 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:

County/Area:	Quay
Longitude:	-103.68
Latitude:	35.20
Elevation:	4086 ft.
Soil Name:	Canez
Soil Texture:	Fine sandy loam
Soil Depth:	>60 in.

Test Design:

Replications:	4
Plot Length:	20 ft.
Rows per Plot:	2
Row Spacing:	30 in.
Seeding Rate:	80,000 seeds/ac

Management Practices:

Previous Crop:	Fallow
Planting Date:	28-Jun
Harvest Dates:	6-Oct

Production Inputs

	Rate		Date
Fertilizer:	0		
Nitrogen	0	lb/a	carryover
Nitrogen	0	lb/a	

Herbicides:

Roundup Power Max	3%	vol/vol	1-Jul
Brimstone	4	pts/A	1-Jul
Bicep Lite II Magnum	2	qt/A	6-Jul

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	39	0.18	0.00
February	36	0.10	0.00
March	50	1.52	0.00
April	57	0.13	0.00
May	67	2.12	0.00
June	78	1.22	0.00
July	77	6.51	0.00
August	79	2.19	0.00
September	75	0.55	0.00
October	62	0.98	0.00
November			
December			

Seasonal Precipitation	13.6 in.
Total Irrigation	0.0 in.

Date of Last Spring Frost:	21-Apr
Date of First Fall Frost:	12-Nov
Frost Free Period:	205 days

Table 14B. New Mexico 2021 Forage Sorghum Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum† Type	Maturity Group	Brown Midrib	Dry Forage	65% Moisture Adj. 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
Dyna-Gro Seed	SuperSile 30	FS	ME	N	1.6	4.4	65.1	11.3	54.3	64.3	2.0	4.3	70.8	0.485	1931	2980
Dyna-Gro Seed	F72FS05	FS	ME	N	1.5	4.2	62.0	11.4	52.2	64.8	2.8	4.2	72.2	0.484	1899	2763
Dyna-Gro Seed	FX21865	FS	MF	N	1.5	4.2	62.9	11.4	53.5	66.3	2.5	5.4	70.9	0.493	1990	2936
Dyna-Gro Seed	SweetTon MS	FS	MF	N	1.4	3.9	61.4	9.5	49.2	68.3	5.4	3.4	73.7	0.466	1833	2480
Dyna-Gro Seed	F74FS23 BMR	FS	M	Y	1.3	3.6	66.0	11.3	51.0	71.3	2.6	4.4	73.3	0.491	1997	2513
Dyna-Gro Seed	SuperSile 20	FS	MF	N	1.3	3.7	66.7	11.1	53.6	64.3	2.2	4.4	70.9	0.478	1888	2415
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y	1.2	3.5	62.3	11.1	52.4	68.0	2.8	5.0	71.3	0.491	1992	2401
Mojo Seed	Pearl	FS	M	N	1.2	3.4	63.0	11.2	53.6	67.0	2.5	4.7	71.2	0.500	2007	2357
Dyna-Gro Seed	5 Star	FS	ME	N	1.1	3.2	64.5	11.3	54.2	64.0	2.0	3.9	71.1	0.481	1901	2112
Dyna-Gro Seed	F74FS72 BMR	FS	MF	Y	1.1	3.2	63.2	11.4	52.7	68.8	2.2	4.0	72.2	0.495	2023	2270
Dyna-Gro Seed	FX21842	FS	MF	N	1.0	2.8	63.0	11.1	53.9	62.5	2.3	4.3	70.8	0.480	1859	1787
Dyna-Gro Seed	F71FS72 BMR	FS	E	Y	0.9	2.7	60.5	10.8	53.6	65.8	3.2	4.1	71.1	0.489	1968	1818
Dyna-Gro Seed	FX21815	FS	ME	N	0.9	2.5	62.2	11.7	53.6	63.0	2.5	4.1	71.7	0.492	1940	1648
Dyna-Gro Seed	F72FS25 BMR	FS	M	Y	0.7	1.9	62.1	11.5	52.1	69.0	2.2	3.9	72.2	0.492	2000	1310
			Trial Mean		1.2	3.4	63.2	11.1	52.9	66.2	2.6	4.3	71.7	0.487	1945	2271
			LSD P < 0.05		NS	NS	2.5	0.8	1.7	4.1	0.9	NS	1.3	0.013	77	NS
			CV		31.4	31.7	2.8	5.3	2.3	4.4	24.2	21.4	1.3	1.8	2.8	31.2
			F Test		0.0602	0.0680	0.0004	0.0025	0.0001	0.0025	0.0001	0.3571	0.0003	0.0005	0.0001	0.0602

† 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 15A. New Mexico 2021 Irrigated Sorghum x Sudangrass Performance Test - Agricultural Science Center at Artesia

Investigators: R. Flynn, R. Pacheco, 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:	63,000 seed/a

Management Practices:

Previous Crop:	cotton
Planting Date:	25-Jun
Harvest Date:	24-Aug

Production Inputs

	Rate	Date
Fertilizer:		
Nitrogen	100 lb/a	25-Apr
Nitrogen	100 lb/a	23-Jul
P_2O_5	96 lb/a	25-Apr

Herbicides:

None

Insecticides:

None

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	40.0	0.25	
February	41.4	0.27	
March	52.0	0.03	
April	58.2	1.30	1.55
May	70.9	1.00	4.12
June	80.0	4.31	8.74
July	78.2	1.71	9.93
August	77.8	1.91	3.61
September	74.4	0.39	
October	62.1	0.92	
November	51.2	0.09	
December	50.0	0.00	

Seasonal Precipitation	10.23 in.
Total Irrigation	27.94 in.
Date of Last Spring Frost:	1-Apr
Date of First Fall Frost:	29-Oct
Frost Free Period:	211 days

Table 15B. New Mexico 2021 Irrigated Sorghum x Sudangrass Performance Test - Agricultural Science Center at Artesia

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum† Type	Maturity§ Group	Brown Midrib	Dry Forage	Green Forage	Moisture at Harvest	CP	ADF	NDF	NDFD 30hr	IVTDMD	Ash	TDN	NE_l	RFQ
					t/a	t/a	%	%	%	%	%	%	%	%	Mcal/lb	
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	8.4	22.5	62.9	3.3	34.2	60.6	59.8	75.9	4.6	63.6	0.654	105
Sorghum Partners	Sordan Headless	SxS	PS	N	7.8	26.1	70.3	5.0	33.3	54.2	68.0	82.1	5.9	64.6	0.665	123
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	7.1	26.0	72.3	4.8	32.3	54.8	75.8	84.3	6.0	65.7	0.677	136
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	6.6	20.8	69.0	4.3	32.1	55.8	70.0	81.1	5.3	66.0	0.680	130
Dyna-Gro Seed	Dynagraze II BMR	SxS	ME	Y	6.5	18.6	65.2	4.3	34.4	56.9	61.3	77.4	7.1	63.3	0.651	106
Dyna-Gro Seed	Sweet Ton MS	FS	MF	N	6.4	19.7	67.9	6.1	27.8	45.3	73.3	86.2	6.1	70.9	0.735	148
Sorghum Partners	Sordan 79	SxS	M	N	5.5	16.9	68.5	4.2	39.3	62.7	48.8	67.6	8.6	57.8	0.589	80
Sorghum Partners	SP 4555	SxS	M	Y	5.4	16.0	66.1	4.8	38.0	60.3	57.3	72.2	9.4	59.2	0.605	91
Dyna-Gro Seed	Super Sweet 10	SxS	ME	N	5.1	14.7	66.0	4.8	37.5	59.2	50.8	70.8	8.2	59.8	0.612	93
Dyna-Gro Seed	First Graze	SxS	ME	N	5.1	14.6	64.8	5.1	37.3	57.7	53.3	71.8	8.8	60.1	0.615	91
Sorghum Partners	SP 4105	SxS	PS	Y	5.0	18.9	74.2	5.6	36.1	57.9	62.3	77.3	8.9	61.4	0.629	114
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	4.9	14.7	66.0	4.3	37.5	58.8	52.0	70.9	9.0	59.8	0.611	89
			Trial Mean		6.1	19.1	67.8	4.7	35.0	57.0	61.0	76.5	7.3	62.7	0.643	109
			LSD (P < 0.05)		1.4	3.9	3.0	0.8	2.2	3.2	5.4	3.3	0.9	2.5	0.028	13
			CV		15.3	14.1	3.1	11.8	4.4	3.9	6.1	3.0	8.7	2.8	3.1	8.3
			F Test		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

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

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

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

Table 16A. New Mexico 2021 Forage Sorghum & Sorghum x Sudan Performance Test - 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:

County/Area:	Quay
Longitude:	-103.68
Latitude:	35.20
Elevation:	4086 ft.
Soil Name:	Canez
Soil Texture:	Fine sandy loam
Soil Depth:	>60 in.

Test Design:

Replications:	4
Plot Length:	20 ft.
Rows per Plot:	8
Row Spacing:	6 in.
Seeding Rate:	25 lb/ac

Management Practices:

Previous Crop:	Fallow
Planting Date:	6-Jul
Harvest Dates:	6-Oct

Production Inputs

	Rate		Date
Fertilizer:			
Nitrogen		lb/a	carryover
Nitrogen	0	lb/a	

Herbicides:

Roundup Power Max	3%	vol/vol	1-Jul
Brimstone	4	pts/A	1-Jul
Bicep Lite II Magnum	2	qt/A	6-Jul

Growing Conditions:

	Average Temp.	Precip.	Irrigation
	°F	in.	in.
January	39	0.18	0.00
February	36	0.10	0.00
March	50	1.52	0.00
April	57	0.13	0.00
May	67	2.12	0.00
June	78	1.22	0.00
July	77	6.51	0.00
August	79	2.19	0.00
September	75	0.55	0.00
October	62	0.98	0.00
November			
December			

Seasonal Precipitation	11.5 in.
Total Irrigation	0.0 in.

Date of Last Spring Frost:	21-Apr
Date of First Fall Frost:	12-Nov
Frost Free Period:	205 days

Table 16B. New Mexico 2021 Forage Sorghum & Sorghum x Sudan Performance Test - Rex E. Kirksey Agricultural Science Center at Tucumcari

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum† Type	Maturity Group	Brown Midrib	Dry Forage	65% Moisture Adj. 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
Dyna-Gro Seed	Dynagraze II BMR	SxS	ME	Y	1.6	4.6	61.7	12.1	54.9	65.0	2.0	4.2	70.7	0.507	2078	3304
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	Y	1.6	4.5	64.4	12.4	54.8	64.5	1.7	4.3	71.4	0.504	2055	3227
Dyna-Gro Seed	SuperSweet 10	SxS	ME	N	1.6	4.7	59.9	11.1	56.0	59.5	2.6	3.6	69.5	0.485	1901	3112
Dyna-Gro Seed	First Graze	SxS	ME	N	1.5	4.3	61.0	11.3	55.2	61.8	2.5	3.9	70.3	0.489	1942	2899
Dyna-Gro Seed	Fullgraze II	SxS	MF	N	1.5	4.1	63.7	11.1	55.7	63.3	1.9	3.3	70.9	0.493	1971	2856
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y	1.2	3.5	64.4	12.9	53.9	67.0	1.5	5.0	71.0	0.513	2127	2597
Dyna-Gro Seed	Dynagraze II	SxS	ME	N	1.1	3.2	60.9	11.4	56.2	59.5	2.2	3.6	69.4	0.493	1908	2152
Mojo Seed	Pearl	FS	M	N	1.1	3.0	62.7	12.9	55.3	63.5	1.2	4.7	70.7	0.506	2087	2144
Dyna-Gro Seed	SweetTon MS	FS	MF	N	1.1	3.2	63.3	11.7	52.1	68.3	1.4	4.3	71.7	0.485	1956	2175
			Trial Mean		1.4	3.9	62.5	11.9	54.9	63.6	1.9	4.1	70.6	0.497	2003	2718
			LSD P < 0.05		NS	NS	2.3	0.7	1.5	3.4	0.8	0.9	1.2	0.009	65	NS
			CV		31.3	30.9	2.5	4.1	1.9	3.7	28.7	15.5	1.2	1.2	2.2	30.5
			F Test		0.3376	0.0386	0.0018	0.0001	0.0004	0.0001	0.0104	0.0168	0.0100	0.0001	0.0001	0.2980

† 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

Appendix A

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

New Mexico 2021 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	D53TC19	113
Artesia, NM 88210	D54SS34	114
Shawn Carter	D54SS74	114
318-282-9804	D54VC14	114
	D55VC80	115
	D57TC29	117
	D57VC17	117
	D58VC65	118
	D43SS81	103
	D44SS54	104
	D45TC55	105
	D48QZ22	108
	D49SS70	109
	D50VC09	109
	D50VC78	110
	D51VC41	111
	D51SS61	111

New Mexico 2021 Forage Corn Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Relative Maturity
Bayer/Dekalb	DKC67-66	117
23751 Hix Rd	DKC70-64	120
Canyon, TX 79015	DKC64-44	114
Kyle Lawles	DKC61-80	111
806-445-4716		
BH Genetics	BH 8400PCE	114
5933 FM 1157	BH 8732VT2P	117
Ganado, TX 77962	BH 8690VIP3111	116
Travis Janak	BH 8703VIP3110	117
	BY 8705VIP3110	117
	X20044VIP3110	114
	XP 8670TRE	116
	X21042	114
	BH 8704VIP3110	117
Dyna-Gro Seed	D52DC82	112
P.O. Box 38, 103 E. Mill Rd	D53TC19	113
Artesia, NM 88210	D54VC14	114
Shawn Carter	D55VC80	115
318-282-9804	D57TC29	117
	D57VC17	117
	D58VC65	118
	D58VC90	118
	D58QC72	118
Wilbur-Ellis/Integra	Integra 6621 SS	116
87194 494th Ave.	Integra 6641 SS	116
O'Neill, NE 68763	Integra 6695 TRE	116
Aaron Peterson	Integra 6709 VT2P	117
402-290-0373	Integra 6720 SS	117
	Integra 9678 VT2P	117
	Integra 6811 VT2P	118
	Integra 6880 VT2P	118
	Integra 6891 3110	118
	Integra CX001118 VT2P	118
	Integra CX001117 TRE	117

New Mexico 2021 Grain Sorghum Hybrid Performance Test

Company/Brand Name	Hybrid/Variety Name	Maturity Group*
Dyna-Gro Seed	M54GR24	VE
P.O. Box 38, 103 E. Mill Rd	M59GB57	E
Artesia, NM 88210	M59GB94	E
Shawn Carter	M60GB31	ME
318-282-9804	M60GB88	ME
	GX20973	ME
	M63GB78	M
	GX20998	M
	M67GB87	M
	GX20970	MF
	GX21965	MF
	M71GR91	MF
	M72GB71	MF
S&W Seed Co. / Sorghum Partners	SP 25C10	E
2101 Ken Pratt Blvd, Suite 201	SP 43M80	ME
Longmont, CO 80501	SP 68M57	M
Scott Staggenborg	SP 251	E
720-647-8180		

*E=early, ME=medium early, ML or MF=meduim late or medium full, L=late / F=full

New Mexico 2021 Forage Sorghum/SxS Hybrid Performance Test (Single Cut)

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Dyna-Gro Seed	F70FS91 BMR	FS	E	Y
P.O. Box 38, 103 E. Mill Rd	F71FS72 BMR	FS	E	Y
Artesia, NM 88210	5 Star	FS	ME	N
Shawn Carter	F72FS05	FS	ME	N
318-282-9804	FX21815	FS	ME	N
	Super Sile 30	FS	ME	N
	F72FS25 BMR	FS	M	Y
	F74FS23 BMR	FS	M	Y
	F74FS72 BMR	FS	MF	Y
	Sweet Ton MS	FS	MF	N
	Super Sile 20	FS	MF	N
	FX21865	FS	MF	N
	FX21842	FS	MF	N
Mojo Seed Enterprises	Pearl	FS	M	N
P.O. Box 1716	Opal	FS	ML	N
Hereford, TX 79045				
Jerry O'Rear				
806-445-6442				
S&W Seed Co. / Sorghum Partners	NK300	FS	ME	N
2101 Ken Pratt Blvd, Suite 201	SS405	FS	MF	N
Longmont, CO 80501	SP 3904 BD BMR	FS	MF	Y
Scott Staggenborg	SP 3905 BD BMR	FS	ME	Y
720-647-8180				
Wilbur-Ellis/Integra	Integra 38F80	FS	ML	N
87194 494th Ave.	Integra 33F70	FS	L	Y
O'Neill, NE 68763	Integra 34F95	FS	ME	Y
Aaron Peterson				
402-290-0373				

*E=early, ME=medium early, ML or MF=meduim late or medium full, L=late / F=full, PS=photoperiod sensitive

New Mexico 2021 Forage Sorghum/SxS Hybrid Performance Test (Multi Cut **)

Company/Brand Name	Hybrid/Variety Name	Forage Type	Maturity Group*	Brown Midrib
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	Y
P.O. Box 38, 103 E. Mill Rd	First Graze	SxS	ME	
Artesia, NM 88210	Super Sweet 10	SxS	ME	
Shawn Carter	Dynagraze II	SxS	ME	
318-282-9804	Dynagraze II BMR	SxS	ME	Y
	Fullgraze II	SxS	MF	
	Fullgraze II BMR	SxS	MF	Y
	Sweet Ton MS	FS	MF	
S&W Seed Co. / Sorghum Partners	SP 4105	SxS	PPS	Y
2101 Ken Pratt Blvd, Suite 201	SP 4555	SxS	M	Y
Longmont, CO 80501	Sordan 79	SxS	M	N
Scott Staggenborg	Sordan Headless	SxS	PPS	N
720-647-8180				

*E=early, ME=medium early, ML or MF=meduim late or medium full, L=late / F=full, PS=photoperiod sensitive

** All trials were cut only once in 2021.

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.

IVTDMD: In vitro true dry matter digestibility.

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 (Neutral Detergent Fiber Digestibility – 30 or 48hr): NDFD is a measure of either 30-hr or 48-hr digestibility of the NDF component. The NDFD procedure employs an *in vitro* fermentation. NDFD 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.

New Mexico State University
BE BOLD. Shape the Future.

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and extension programs.