

Table 1. Winter Annual Small Grain Forages, 2019-2020, Agricultural Science Center at Clovis

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

Test Description

Location:	Management Practices:	Growing Conditions:																																																																																																	
County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.	Previous Crop: fallow Planting Date: 1-Nov <u>Forage Harvest - Single harvest per plot</u> Harvest Dates: 24-April to 18-May (Mechanically harvested all of each plot based on stage of maturity. Clipping height was 1 to 2 in.) Production Inputs: <table border="0" style="margin-left: 20px;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> <tr> <th></th> <th style="text-align: center;">lb/ac</th> <th></th> </tr> </thead> <tbody> <tr> <td>Fertilizer:</td> <td></td> <td></td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">44 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">30 lb/ac</td> <td>at plant</td> </tr> <tr> <td>Phos</td> <td style="text-align: center;">40 lb/ac</td> <td>at plant</td> </tr> <tr> <td>S</td> <td style="text-align: center;">3.3 lb/ac</td> <td>at plant</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">90 lb/ac</td> <td>2-Mar</td> </tr> <tr> <td>S</td> <td style="text-align: center;">16.3 lb/ac</td> <td>2-Mar</td> </tr> <tr> <td>Herbicides:</td> <td></td> <td></td> </tr> <tr> <td>Lo-Vol 6</td> <td style="text-align: center;">1.0 pt/ac</td> <td>23-Mar</td> </tr> <tr> <td>Prowl H₂O</td> <td style="text-align: center;">3 pt/ac</td> <td>23-Mar</td> </tr> <tr> <td>Affinity BS</td> <td style="text-align: center;">0.6 oz/ac</td> <td>23-Mar</td> </tr> <tr> <td>Insecticides:</td> <td></td> <td></td> </tr> <tr> <td>Govern</td> <td style="text-align: center;">1 pt/ac</td> <td>23-Mar</td> </tr> </tbody> </table>		Rate	Date		lb/ac		Fertilizer:			Nitrogen	44 lb/ac	carryover	Nitrogen	30 lb/ac	at plant	Phos	40 lb/ac	at plant	S	3.3 lb/ac	at plant	Nitrogen	90 lb/ac	2-Mar	S	16.3 lb/ac	2-Mar	Herbicides:			Lo-Vol 6	1.0 pt/ac	23-Mar	Prowl H ₂ O	3 pt/ac	23-Mar	Affinity BS	0.6 oz/ac	23-Mar	Insecticides:			Govern	1 pt/ac	23-Mar	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average</th> <th></th> <th></th> </tr> <tr> <th></th> <th style="text-align: center;">Temp.</th> <th style="text-align: center;">Precip.</th> <th style="text-align: center;">Irrigation</th> </tr> <tr> <th></th> <th style="text-align: center;">°F</th> <th style="text-align: center;">in.</th> <th style="text-align: center;">in.</th> </tr> </thead> <tbody> <tr> <td>November</td> <td style="text-align: center;">43.1</td> <td style="text-align: center;">0.78</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>December</td> <td style="text-align: center;">39.8</td> <td style="text-align: center;">0.55</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>January</td> <td style="text-align: center;">38.2</td> <td style="text-align: center;">0.73</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>February</td> <td style="text-align: center;">38.0</td> <td style="text-align: center;">0.37</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>March</td> <td style="text-align: center;">51.0</td> <td style="text-align: center;">1.19</td> <td style="text-align: center;">2.00</td> </tr> <tr> <td>April</td> <td style="text-align: center;">53.9</td> <td style="text-align: center;">0.43</td> <td style="text-align: center;">6.90</td> </tr> <tr> <td>May†</td> <td style="text-align: center;">65.5</td> <td style="text-align: center;">0.05</td> <td style="text-align: center;">1.25</td> </tr> <tr> <td colspan="4" style="border-top: 1px solid black;">†May 1-18</td> </tr> <tr> <td>Seasonal Precipitation</td> <td></td> <td style="text-align: center;">4.10 in.</td> <td></td> </tr> <tr> <td>Total Irrigation</td> <td></td> <td style="text-align: center;">10.15 in.</td> <td></td> </tr> </tbody> </table>		Average				Temp.	Precip.	Irrigation		°F	in.	in.	November	43.1	0.78	0.00	December	39.8	0.55	0.00	January	38.2	0.73	0.00	February	38.0	0.37	0.00	March	51.0	1.19	2.00	April	53.9	0.43	6.90	May†	65.5	0.05	1.25	†May 1-18				Seasonal Precipitation		4.10 in.		Total Irrigation		10.15 in.	
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Test Design: Replications: 3 Plot Length: 5 ft. Plot Width: 6.25 ft. Rows per Plot: 11 Drill Row Spacing: 6.25 in.																																																																																																			
Seeding Rate: All Entries: 100 lb/a																																																																																																			
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Table 2. Forage Harvest - Winter Annual Small Grain Forages - 2019-2020 - NMSU Agricultural Science Center at Clovis

Company Name	Variety Name	Species [†]	Harvest Date	Dry	65%	Moisture	Milk/Ton	Milk/Acre
				Forage T/ac	Moisture Forage T/ac	at Harvest %		
Watley Seed Co.	Slicktrit II	triticale	18-May	7.2 ***	20.6 ***	75.7	2238	16177 *
Ehmke Seed	Thunder Tall	triticale	11-May	6.6 *	19.0 *	78.7 *	2499	16727 *
Texas A&M Agrilife	TX16VT68295	triticale	29-Apr	6.2	17.8	76.0	2953 *	18495 ***
Curtis & Curtis	Maximizer Plus	w/t	11-May	6.2	17.7	76.0	2316	14220
Texas A&M Agrilife	TX14VT70526	triticale	29-Apr	6.1	17.4	78.0 *	2564	15593 *
Watley Seed	T-011	triticale	29-Apr	6.0	17.2	75.6	2901 *	17389 *
Watley Seed	T-009	triticale	7-May	5.9	17.0	77.7	2690 *	15998 *
Ehmke Seed	Thunder Cale	triticale	29-Apr	5.9	17.0	78.0 *	2766 *	16270 *
Ehmke Seed	Thunder Tall II	triticale	11-May	5.9	16.9	79.0 *	2370	13969
Texas A&M Agrilife	TX12VT8222-3	triticale	29-Apr	5.8	16.6	76.7	2601	15112
Ehmke Seed	Thunder Cale V	triticale	29-Apr	5.8	16.6	80.0 *	2798 *	16228 *
Texas A&M Agrilife	TX17AT03	triticale	29-Apr	5.8	16.6	77.0	2430	14063
Ehmke Seed	Shortbeard Thunder	triticale	29-Apr	5.7	16.2	79.3 *	2958 ***	16739 *
Curtis & Curtis	Maximizer	w/t	7-May	5.6	16.0	76.3	2478	13835
Agri Pro	Bob Dole**	wheat	4-May	5.6	15.9	77.7	2512	14023
Curtis & Curtis	Smoothgrazer	w/t	4-May	5.6	15.9	79.3 *	2841 *	15766 *
Texas A&M Agrilife	TX14VT70473	triticale	29-Apr	5.5	15.8	76.3	2310	12821
Ehmke Seed	Thunder Green	rye	24-Apr	5.5	15.7	79.0 *	2734 *	15007
Ehmke Seed	Fredro	triticale	4-May	5.3	15.2	80.3 *	2455	13033
Agri Pro	SY Wolverine**	wheat	4-May	5.3	15.0	77.7	2704 *	14146
Curtis & Curtis	Smoothgrazer Plus	w/t	4-May	5.2	14.7	81.7 ***	2410	12391
Texas A&M Agrilife	TX17AT10	triticale	29-Apr	5.0	14.3	79.3 *	2641 *	13151
Agri Pro	09BC308-14-16**	wheat	29-Apr	4.5	12.9	75.3	2921 *	13323
Agri Pro	SY Grit**	wheat	4-May	4.2	12.0	78.3 *	2622	11028
Dyna-Gro	Long Branch	wheat	4-May	4.1	11.7	79.0 *	2853 *	11739
Trial Mean				5.6	16.1	77.9	2623	14689
LSD (0.05)				1.0	2.75	0.03	329	3190
CV				10.4	10.4	3.0	7.7	13.2
F Test				<.0001	<.0001	<.0001	<.0001	0.0017

[†]B=barley; T=triticale; W=wheat, R=Rye

Plots were harvested at Feekes stage 10.0-10.3; 10.0=sheath of flag leaf completely grown out, ear not visible;

10.3= half of heading process complete.

*** Highest numerical value in the column.

** Planted 120 lb/ac

* Not significantly different from the highest value

Table 3. Forage Harvest - Winter Annual Small Grain Forages - 2019-2020 Various Dates - NMSU Agricultural Science Center at Clovis

Company Name	Variety Name	Species [†]	Harvest Date	CP	ADF	NDF	dNDF	TDN	RFQ
				% of DM	% of DM	% of DM	% of NDF	% of DM	
Watley Seed Co.	Slicktrit II	triticale	18-May	13.3	38.3 ***	58.6 ***	63.7	54.0	99
Ehmke Seed	Thunder Tall	triticale	11-May	15.6	36.8 *	56.0	67.9	57.0	115
Texas A&M Agrilife	TX16VT68295	triticale	29-Apr	17.6 *	32.1	50.4	72.9 *	62.5 ***	148 ***
Curtis & Curtis	Maximizer Plus	w/t	11-May	13.8	38.2 *	57.3 *	66.5	54.9	105
Texas A&M Agrilife	TX14VT70526	triticale	29-Apr	16.4	36.2	55.7	69.8	57.6	120
Watley Seed	T-011	triticale	29-Apr	17.0 *	32.5	51.3	73.6 *	61.8 *	144 *
Watley Seed	T-009	triticale	7-May	17.1 *	34.8	54.8	71.9 *	59.2 *	127
Ehmke Seed	Thunder Cale	triticale	29-Apr	17.4 *	34.4	53.9	71.1 *	60.2 *	133 *
Ehmke Seed	Thunder Tall II	triticale	11-May	15.1	37.2 *	57.3 *	65.4	55.5	107
Texas A&M Agrilife	TX12VT8222-3	triticale	29-Apr	14.7	35.4	54.8	68.6	58.5	120
Ehmke Seed	Thunder Cale V	triticale	29-Apr	16.8	34.1	53.0	73.6 *	60.5 *	135 *
Texas A&M Agrilife	TX17AT03	triticale	29-Apr	15.7	35.7	55.9	69.2	56.2	112
Ehmke Seed	Shortbeard Thunder	triticale	29-Apr	18.0 *	32.9	52.3	73.4 *	62.4 *	145 *
Curtis & Curtis	Maximizer	w/t	7-May	15.6	36.7 *	54.9	70.1	56.7	117
Agri Pro	Bob Dole**	wheat	4-May	15.2	36.3 *	55.7	69.2	57.0	118
Curtis & Curtis	Smoothgrazer	w/t	4-May	17.4 *	34.8	53.9	71.2 *	61.0 *	137 *
Texas A&M Agrilife	TX14VT70473	triticale	29-Apr	14.6	37.6 *	57.2 *	62.7	54.9	104
Ehmke Seed	Thunder Green	rye	24-Apr	18.8 ***	32.8	54.5	69.5	60.1 *	127
Ehmke Seed	Fredro	triticale	4-May	17.2 *	35.2	56.2 *	66.9	56.5	113
Agri Pro	SY Wolverine**	wheat	4-May	16.3	34.7	54.1	72.4 *	59.4 *	129 *
Curtis & Curtis	Smoothgrazer Plus	w/t	4-May	15.6	36.8 *	57.0 *	69.8	55.8	110
Texas A&M Agrilife	TX17AT10	triticale	29-Apr	16.8	34.4	55.1	66.6	59.0 *	121
Agri Pro	09BC308-14-16**	wheat	29-Apr	17.3 *	33.4	50.9	74.1 ***	62.0 *	147 *
Agri Pro	SY Grit**	wheat	4-May	17.2 *	35.8	54.0	70.9 *	58.2	126
Dyna-Gro	Long Branch	wheat	4-May	17.2 *	33.4	52.9	73.3 *	61.2 *	138 *
Trial Mean				16.3	35.2	54.7	69.8	58.5	124
LSD (0.05)				2.0	2.0	2.4	3.6	4.0	20
CV				7.4	3.4	2.7	3.2	4.1	9.7
F Test				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

[†]B=barley; T=triticale; W=wheat; R=Rye

Plots were harvested at Feekes stage 10.0-10.3; 10.0=sheath of flag leaf completely grown out, ear not visible; 10.3=half of heading process complete.

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Unless otherwise indicated, all entries planted at 100 lb/ac rate.