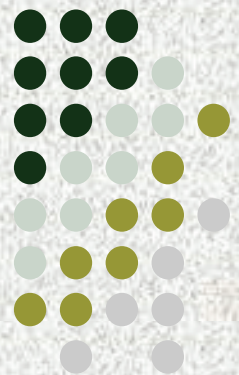


2014

SCS-2014-03



Texas Cool-Season Annual Forage Variety Results

varietytesting.tamu.edu

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2014

Forage Variety Results

Texas Cool-Season Annual Variety Trials

varietytesting.tamu.edu/wheat

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Introduction

The statewide Cool-Season Annual Forage Variety Trial data presented in the following pages are the results from six trials coordinated and implemented by numerous Texas A&M AgriLife Extension and Research faculty and staff. We also appreciate the cooperation from Texas County Extension Agents, producers, and private industry partners that contributed locations, property, seed, time and other assets to conduct these field trials. The purpose of this publication is to provide unbiased yield data for forage producers across the state. With this information, Texas forage producers can make educated decisions regarding the most appropriate varieties for their geographic region.

Variety Selection:

Selection of an appropriate cool season forage variety is one of the most important decisions a producer will make. This decision can impact the potential forage yield, forage nutritive value, disease and insect management, and maturity of the crop. It is important that producers have diversity in the varieties planted on their farms to minimize production risks. The choice of varieties depends on the intended use of the crop (forage or dual-purpose) and when forage is most needed. Even though total forage production may be similar, certain species/varieties tend to produce more forage during the fall, winter, or spring. Variety diversification spreads the risk associated with potentially devastating pests (leaf and stripe rust, Hessian fly, wheat curl mite, greenbugs, etc.) and yield loss from adverse environmental factors (freeze, drought, etc.).

Producers should select no fewer than two varieties to plant on their farms and preferably more, depending upon size, location, and purpose of fields. Variety selection should be based upon multiple years of sound data produced from university trials and other reliable sources. High yields over multiple years and multiple locations demonstrate a variety's ability to perform well over diverse environmental factors. Stable yield performance of forage is the best variety selection tool. It is important to consider decreasing yield over a two or three year time frame, which may reflect a change in disease and/or insect resistance.

When selecting a variety for the 2015 season, producers should consider the variables that limited yield in the previous growing season; which may have had a negative impact on the results presented in the following pages. We strongly encourage producers to look at multiple year averages and to look at numerous relevant variety trial locations.

Interpreting the Data:

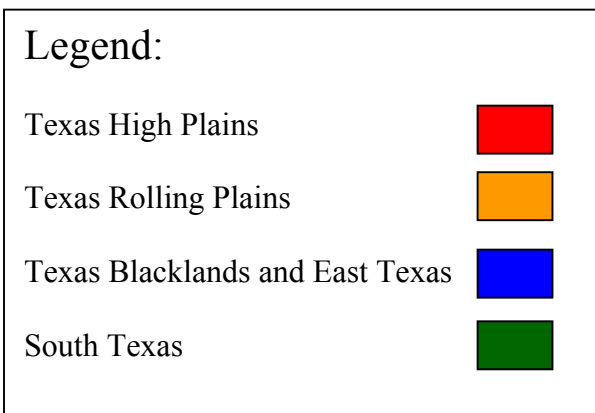
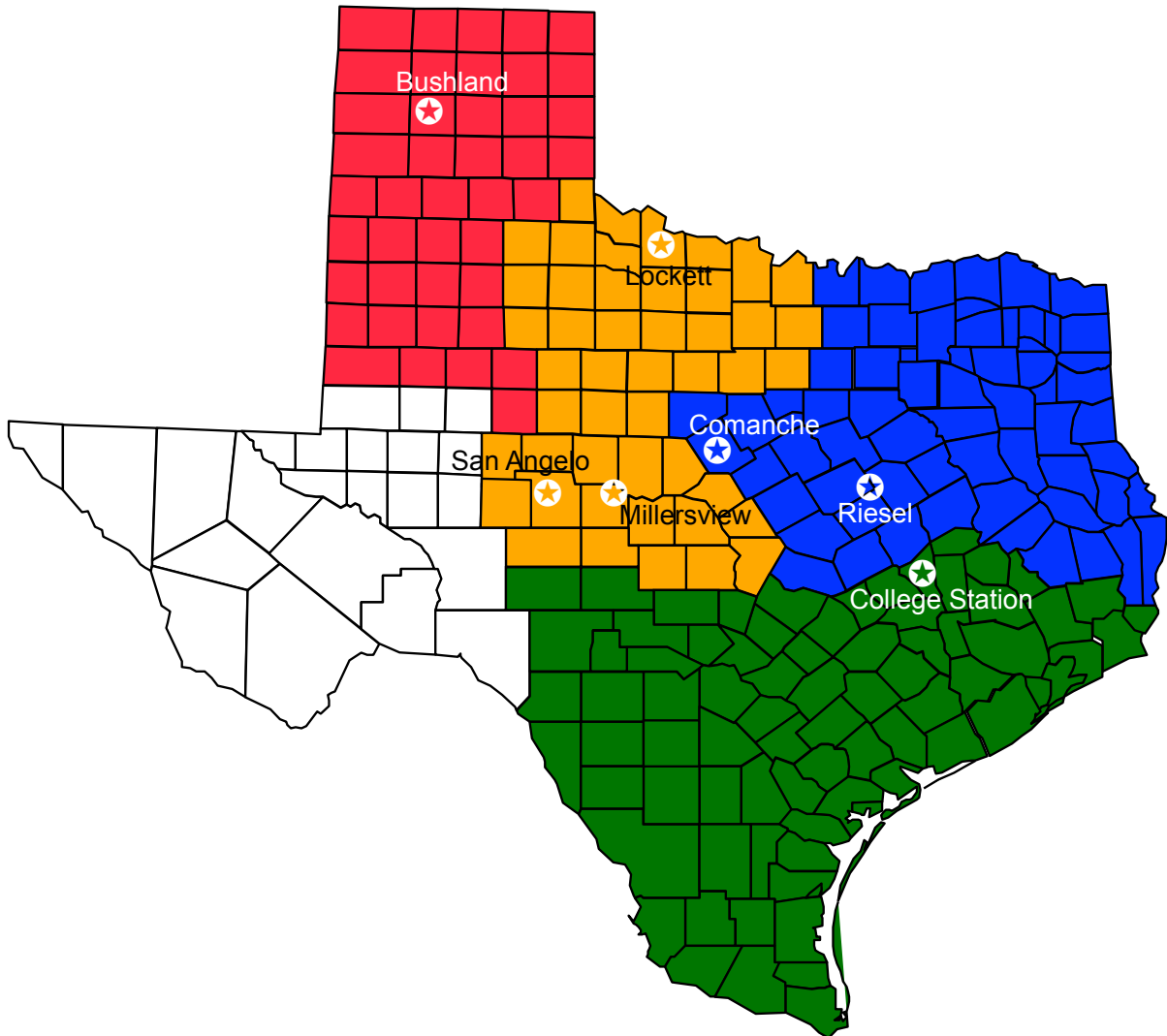
Forage yield at each location has been analyzed using appropriate statistical procedures. The statistical analysis provides the mean, CV, and LSD values. It is important to note these statistical values to prevent misinterpretation of any replicated data.

The mean is another term for the average. Therefore, a mean yield is the average of all the plots within a trial. Individual variety yields can be compared to the mean yield to determine how these varieties performed within the trial (i.e. were they above or below average?). This average can also be used as an indication of the environment for that location. A low mean yield can indicate poor growing conditions during the season; likewise, a high yield average can indicate favorable growing conditions.

The CV (Coefficient of Variation) value, expressed as a percentage, indicates the level of unexplained variability present within the trial. A high CV value indicates considerable variability existed within the trial not related to normal variations that might be expected between the varieties in the test. This variability may be the result from non-uniform stands, non-uniform insect or disease pressure, variability in harvesting, or other issues. Generally, CV values in excess of 25% signify that there were problems in the trial, leading the reader to question the validity of the data as a true representation of varietal performance.

The LSD (Least Significant Difference) value is a numeric range to help the reader determine if the varieties performed differently from one another within the trial. If the LSD value is 2 ton/ac in a trial in which Variety A yielded 6 ton/ac and Variety B yielded 3 ton/ac, then Variety A is said to be significantly better. In that same trial with an LSD value of 2 ton/ac at a 0.05 (5%) significance level, the statistical inference one could say is that Variety A would yield better than Variety B in 19 out of 20 trials conducted in which there was at least a 2 ton/ac difference in yield. In this hypothetical comparison, you might have a 20th trial with a 2 ton/ac difference that there is not truly a difference between Variety A and B, but random chance caused the 2 ton difference.

Texas Regional Map



2014 Texas Region Overview

Texas Blacklands:

The Texas Blacklands had a good growing season for winter pasture compared to much of the rest of the state. Rainfall throughout both September and October allowed for sufficient moisture for early season growth. Cooler weather and sufficient rainfall through December enabled the crop to maintain a good stand and promote fall forage growth. However, colder temperatures throughout the late winter and early spring along with below normal precipitation did not promote much forage growth during this time. An abrupt cold snap in early March burnt back much of the foliage, but plants were able to recover. A second freeze in mid-April forced some producers to harvest wheat for forage instead of grain, due to the level of freeze damage. Insects or diseases were not a substantial concern throughout this area during the 2013-2014 forage season, except for isolated pockets of barley yellow dwarf virus.

Texas High Plains:

Producers in the Texas High Plains struggled this winter with a continuing severe drought. Rainfall events were few and far between, which did little to get a winter crop established. Most fields that were not under irrigation did not survive the winter due both to water availability and cold temperatures. Rainfall throughout this region ranged from 4-6 inches all season long. Temperatures started off normal for planting and were only slightly below normal for the winter and spring. Insects and diseases were not a major problem in winter pastures in this area.

Texas Rolling Plains:

The Texas Rolling Plains producers experienced a decent year for winter pasture production compared to the previous years. Early season rainfall in September and October allowed for good seedling emergence if pastures were planted timely with rainfall; however, the elevated temperatures during this time did not allow the moisture to remain in the upper portion of the soil profile for an extended time. Not unlike many other areas of the state; both rainfall and temperatures were below normal during the late winter and spring seasons. Rainfall increased with temperatures later in April and early May. Like the rest of the state, insects and diseases were not a major problem this year.

South Texas:

In the southern part of the state, winter pasture planting was a challenge to accomplish between rainfall events in September; however, sufficient rainfall throughout the remainder of the fall allowed for good emergence and establishment. Below normal temperatures and rainfall during the winter limited forage growth, but these cooler temperatures and higher rainfall later in the growing season significantly increased spring growth. As with much of the state, insects and diseases were not a significant issue throughout the growing season.

Forage Trial Agronomic Data

Location ¹	Cooperator(s)	Yield Limiting Issues	Planting Date	Pesticide Applied (Date)
Bushland²	Texas A&M AgriLife Research and Extension Center	Winterkill on Oats	9/23/13	--
College Station²	Texas A&M Research and Extension Agronomy Farm	Freezes (< 25°F) on 2/14/4 & 3/3/14	9/25/13	Declare (10/11/13) Weedmaster (2/21/14)
Comanche	Indian Creek Farm; Rodney Stephens	Non-uniform grazing; ABANDONED	9/27/13	--
Millersview	Mickey Dillard Joe Beach Millersview Community Producers	Grazing from deer and rabbits	9/26/13	--
Riesel	Lynn Gnismer	Poor emergence volunteer ryegrass; BYDV ³ ABANDONED	9/27/13	Dimethoate 4E Weedmaster (2/21/14)
San Angelo	Texas A&M AgriLife Research and Extension Center	Poor Stand; Drought Conditions following Clip 1	9/26/13	--
Lockett²	Texas A&M AgriLife Research and Extension Center	Winterkill on Oats	9/26/13	--

¹These locations were planted with a seeding rate of 90 lb/a. All seed was treated with Gaucho XT at a rate of 3.4 oz/cwt.

²Bushland, College Station, Comanche and Lockett were irrigated. College Station required an additional 1.5" for stand establishment.

³BYDV – Barley Yellow Dwarf Virus

2014 Small Grains Forage Trial - Total Season Forage Yield State Wide

Class ¹	Variety	Developer	Dry Matter Yield (ton/a)			
			Bushland (Irrigated)	Lockett (Irrigated)	Millersview (Dryland)	College Station (Irrigated)
HRWW	Abilene Ag @ 45 lb/a	Abilene Ag	---	---	3.1	---
	Abilene Ag @ 90 lb/a	Abilene Ag	---	---	3.5	---
	Fannin	Syngenta	4.8	2.6	3.9	2.6
	Pete (untreated)	OSU	---	---	2.8	---
	Sturdy 2K	TAMU	4.5	2.2	3.9	2.9
	TAM 113	TAMU	---	---	3.9	---
	TAM 114 (TX07A001505)	TAMU	5.5	2.9	4.8	3.3
	TAM 204** (TX06V7266)	TAMU	4.1	3.0	3.9	2.8
	TAM 305	TAMU	4.4	2.8	4.0	2.8
	TAM 401**	TAMU	3.4	2.3	3.7	2.4
	TX08A001249*	TAMU	4.5	2.2	4.2	2.7
	TX08V7313*	TAMU	4.3	3.1	3.7	3.0
	TX09A001194*	TAMU	5.3	2.6	3.6	3.0
	TX09D1172*	TAMU	3.5	2.8	3.6	3.2
Weathermaster 135**	Unknown	4.8	2.6	4.2	3.1	
Oat	Bob	UA	0.8	1.5	2.9	3.1
	Harrison	LSU	0.9	2.1	2.9	3.2
	Heavy Grazer 76-30	East Texas Seed	1.0	1.8	3.4	2.6
	NF95418	Noble Foundation	0.8	2.1	3.1	3.5
	Nora	UA	0.6	1.7	2.8	3.2
	RAM 99016	LSU	0.8	1.8	3.3	2.9
	TAMO 411	TAMU	1.0	1.6	2.6	3.0
	TAMO 606	TAMU	0.5	2.1	2.9	3.2
	TX09CS031*	TAMU	0.9	1.6	2.5	2.7
	TX09CS1029*	TAMU	0.7	1.8	2.9	2.7
	TX10CAS279*	TAMU	0.7	1.4	2.9	2.8
	TX10CAS302*	TAMU	0.9	1.4	2.3	2.5
	Walken	UK	0.5	1.9	3.5	2.9
	Rye	Elbon	Noble Foundation	6.6	3.5	3.2
Maton		Noble Foundation	5.6	3.2	3.8	3.1
Maton II		Noble Foundation	---	3.6	---	2.7
Ryegrass	Heavy Grazer Ryegrass	East Texas Seed	---	---	---	3.5
	Nelson	TAMU	---	---	---	3.7
	Prine	Ragan and Massey	---	---	---	3.5
	TAMTBO	TAMU	---	---	---	3.9
SB	Craft	UMN	---	---	---	2.2
	Hays	MSU	---	---	---	2.6
	Hocket	MSU	---	---	---	2.3
	MT103041-4*	MSU	---	---	---	2.2
SRWW	Heavy Grazer 73-06	East Texas Seed	4.4	2.6	3.2	3.0
TRIT	Fridge**	Elliot Plant Breeding	5.0	2.5	3.3	2.9
	NF96210	Noble Foundation	---	2.5	---	2.7
	TAMcale 5019	TAMU	4.5	4.0	4.8	2.8
	TAMcale 6331	TAMU	3.8	3.9	3.1	2.6
WB	P-919**	Paramount Seeds	4.3	2.6	3.4	3.1
	TAMbar 501	TAMU	4.5	2.3	3.4	3.2
Mean			3.06	2.43	3.42	2.92
LSD (5%)			1.0	0.8	1.0	0.4
CV (%)			19.9	19.2	19.9	10.8

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

Ryegrass entries were all Tetraploids

2014 Small Grains Forage Trial - Total Yield by Class

2014 Bushland

Class ¹	Cut 1	Cut 2	Cut 3	Cut 4	Total
Rye	0.73	0.59	1.50	3.50	6.32
HRWW	0.58	0.55	1.07	2.31	4.50
WB	0.97	0.51	0.75	2.12	4.35
TRIT	0.79	0.42	0.99	2.10	4.29
Oat	0.45	0.26	0.00	0.00	0.71
Mean	0.58	0.42	0.63	1.41	3.04
LSD (5%)	0.19	0.17	0.17	0.46	0.64
CV (%)	36.0	43.1	30.1	36.5	23.2

2014 Lockett

Class ¹	Cut 1	Cut 2	Cut 3	Cut 4	Total
Rye	1.15	1.75	0.98	---	3.88
TRIT	1.07	1.52	0.80	---	3.40
HRWW	0.90	1.33	0.61	---	2.84
WB	0.94	1.15	0.49	---	2.58
Oat	0.59	0.84	0.47	---	1.91
Mean	0.82	1.21	0.61	---	2.64
LSD (5%)	0.20	0.40	0.22	---	0.52
CV (%)	27.9	38.5	41.5	---	22.9

2014 Millersview

Class ¹	Cut 1	Cut 2	Cut 3	Cut 4	Total
TRIT	0.78	0.45	2.61	---	3.96
HRWW	0.96	0.52	2.33	---	3.81
Rye	0.71	0.38	2.58	---	3.55
WB	1.09	0.53	1.77	---	3.39
Oat	0.79	0.61	1.77	---	3.13
Mean	0.88	0.54	2.11	---	3.53
LSD (5%)	0.35	0.17	0.47	---	0.76
CV (%)	39.3	35.2	25.0	---	21.3

2014 College Station

Class ¹	Cut 1	Cut 2	Cut 3	Cut 4	Total
Ryegrass	0.77	0.78	0.92	1.19	3.66
WB	0.89	0.28	0.73	1.26	3.16
Oat	1.04	0.31	0.66	0.90	2.91
HRWW	0.84	0.41	0.74	0.89	2.88
Rye	0.47	0.31	0.88	1.19	2.85
TRIT	0.79	0.39	0.68	0.90	2.77
SB	1.19	0.22	0.55	0.37	2.35
Mean	0.91	0.38	0.71	0.92	2.92
LSD (5%)	0.16	0.13	0.13	0.26	0.30
CV (%)	23.2	42.3	22.2	34.3	12.5

¹Hard Red Winter Wheat (HRWW)
 Triticale (TRIT)
 Winter Barley (WB)

2014 Small Grains Forage Trial - Bushland (Irrigated)

				Dry Matter Yield (ton/a)				
2014		Class ¹	Developer	Clip 1	Clip 2	Clip 3	Clip 4	Total
Rank ^a	Variety			11/20/13	2/11/14	3/28/14	4/18/14	4 Clips
1	Elbon	Rye	Noble Foundation	0.7	0.6	1.5	3.7	6.6
2	Maton	Rye	Noble Foundation	0.8	0.5	1.5	2.8	5.6
3	TAM 114 (TX07A001505)	HRWW	TAMU	0.8	0.6	1.3	2.8	5.5
4	TX09A001194*	HRWW	TAMU	0.8	0.6	1.3	2.6	5.3
5	Fridge**	TRIT	Elliot Plant Breeding	1.0	0.4	1.1	2.4	5.0
6	Weathermaster 135**	HRWW	Unknown	0.5	0.7	1.0	2.6	4.8
7	Fannin	HRWW	Syngenta	0.8	0.6	1.1	2.3	4.8
8	TAMcale 5019	TRIT	TAMU	0.8	0.5	1.0	2.2	4.5
10	TAMbar 501	WB	TAMU	0.8	0.6	0.7	2.4	4.5
12	TX08A001249*	HRWW	TAMU	0.6	0.7	1.1	2.1	4.5
13	Sturdy 2K	HRWW	TAMU	0.4	0.6	1.0	2.5	4.5
14	TAM 305	HRWW	TAMU	0.5	0.5	1.2	2.3	4.4
15	Heavy Grazer 73-06	SRWW	East Texas Seed	0.6	0.7	1.0	2.1	4.4
16	TX08V7313*	HRWW	TAMU	0.7	0.5	1.1	2.0	4.3
17	P-919**	WB	Paramount Seeds	1.3	0.5	0.8	1.8	4.3
18	TAM 204** (TX06V7266)	HRWW	TAMU	0.4	0.4	0.9	2.4	4.1
19	TAMcale 6331	TRIT	TAMU	0.5	0.5	0.9	1.9	3.8
20	TX09D1172*	HRWW	TAMU	0.4	0.2	1.0	2.0	3.5
21	TAM 401**	HRWW	TAMU	0.6	0.4	0.8	1.6	3.4
22	Heavy Grazer 76-30	Oat	East Texas Seed	0.6	0.4	0.0	0.0	1.0
23	TAMO 411	Oat	TAMU	0.6	0.3	0.0	0.0	1.0
24	Harrison	Oat	LSU	0.5	0.4	0.0	0.0	0.9
25	TX09CS031*	Oat	TAMU	0.5	0.3	0.0	0.0	0.9
26	TX10CAS302*	Oat	TAMU	0.6	0.3	0.0	0.0	0.9
27	Bob	Oat	UA	0.5	0.3	0.0	0.0	0.8
28	NF95418	Oat	Noble Foundation	0.4	0.4	0.0	0.0	0.8
29	RAM 99016	Oat	LSU	0.5	0.3	0.0	0.0	0.8
30	TX10CAS279*	Oat	TAMU	0.4	0.4	0.0	0.0	0.7
31	TX09CS1029*	Oat	TAMU	0.4	0.3	0.0	0.0	0.7
32	Nora	Oat	UA	0.5	0.2	0.0	0.0	0.6
33	Walken	Oat	UK	0.3	0.2	0.0	0.0	0.5
34	TAMO 606	Oat	TAMU	0.2	0.3	0.0	0.0	0.5
Mean				0.61	0.43	0.64	1.39	3.06
LSD (5%)				0.3	0.3	0.3	0.8	1.0
CV (%)				26.2	35.7^b	33.2^b	34.0^b	19.9

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Total Forage Weight

^bTrials with a coefficient of variation (CV) \geq 25% contain excessive experimental error.

Readers should consider trials in a similar environment to confirm varietal yield.

2014 Small Grains Forage Trial - Bushland (Irrigated) Clip 2 (2/11/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)				
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]	
1	Weathermaster 135**	HRWW	Unknown	1379	417	10.2	30.2	36.9	82.7	
2	TX08A001249*	HRWW	TAMU	1365	432	10.2	31.7	36.6	81.8	
3	Heavy Grazer 73-06	SRWW	East Texas Seed	1351	386	10.0	28.6	38.0	81.6	
4	Elbon	Rye	Noble Foundation	1296	396	9.4	30.6	32.5	83.5	
5	TAM 114 (TX07A001505)	HRWW	TAMU	1185	343	8.7	28.9	34.9	82.6	
6	Fannin	HRWW	Syngenta	1158	327	10.1	28.3	40.4	81.8	
7	Sturdy 2K	HRWW	TAMU	1157	348	10.6	30.1	34.2	82.8	
8	TAMbar 501	HRWW	TAMU	1103	359	11.2	32.5	39.1	84.5	
9	TX09A001194*	HRWW	TAMU	1103	327	10.7	29.7	37.8	82.4	
10	TAMcale 6331	TRIT	TAMU	1048	314	11.3	30.0	39.1	81.3	
11	TX08V7313*	HRWW	TAMU	1034	293	9.7	28.3	39.6	81.0	
12	Maton	Rye	Noble Foundation	1006	322	10.7	32.0	33.8	83.1	
13	TAMcale 5019	TRIT	TAMU	965	315	10.5	32.7	31.0	83.1	
14	P-919**	WB	Paramount Seeds	923	274	12.0	29.7	42.0	83.7	
15	TAM 305	HRWW	TAMU	910	271	10.1	29.8	36.9	82.2	
16	TAM 204** (TX06V7266)	HRWW	TAMU	869	260	10.1	29.9	37.6	81.5	
17	Fridge**	TRIT	Elliot Plant Breeding	799	249	10.8	31.2	34.1	83.0	
18	Harrison	Oat	LSU	786	---	---	---	---	---	
19	NF95418	Oat	Noble Foundation	785	---	---	---	---	---	
20	TX10CAS279*	Oat	TAMU	744	---	---	---	---	---	
21	TAM 401**	HRWW	TAMU	731	203	9.9	27.7	35.5	82.8	
22	Heavy Grazer 76-30	Oat	East Texas Seed	703	---	---	---	---	---	
23	TAMO 411	Oat	TAMU	662	---	---	---	---	---	
24	TX09CS031*	Oat	TAMU	648	---	---	---	---	---	
25	TX09CS1029*	Oat	TAMU	621	---	---	---	---	---	
26	TAMO 606	WB	TAMU	565	---	---	---	---	---	
27	RAM 99016	Oat	LSU	551	---	---	---	---	---	
28	Bob	Oat	UA	537	---	---	---	---	---	
29	TX10CAS302*	Oat	TAMU	524	---	---	---	---	---	
30	Walken	Oat	UK	455	---	---	---	---	---	
31	Nora	Oat	UA	317	---	---	---	---	---	
32	TX09D1172*	HRWW	TAMU	303	93	9.8	30.7	32.4	82.9	
				Mean	860	312	10.3	30.1	36.4	82.5
				LSD (5%)	500	---	---	---	---	---
				CV (%)	26.2	---	---	---	---	---

Single replicate harvested for quality, No CV or LSD for this clipping available.

[^]In Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - Bushland (Irrigated) Clip 3 (3/28/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)				
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]	
1	Elbon	Rye	Noble Foundation	3033	911	12.0	30.0	36.0	85.7	
2	Maton	Rye	Noble Foundation	2950	880	11.6	29.8	36.4	85.6	
3	TX09A001194*	HRWW	TAMU	2674	858	12.3	32.1	35.6	84.6	
4	TAM 114 (TX07A001505)	HRWW	TAMU	2605	807	12.4	31.0	36.5	84.7	
5	TAM 305	HRWW	TAMU	2302	726	12.3	31.5	37.4	84.5	
6	TX08A001249*	HRWW	TAMU	2288	743	12.6	32.5	36.1	84.3	
7	Fridge**	TRIT	Elliot Plant Breeding	2275	734	12.8	32.3	35.0	85.1	
8	TX08V7313*	HRWW	TAMU	2192	660	12.5	30.1	37.7	84.2	
9	Fannin	HRWW	Syngenta	2191	692	11.5	31.6	37.8	83.5	
10	Sturdy 2K	HRWW	TAMU	2082	638	12.3	30.7	37.2	84.6	
11	Heavy Grazer 73-06	SRWW	East Texas Seed	2041	671	12.2	32.9	37.9	82.8	
12	Weathermaster 135**	HRWW	Unknown	1985	615	12.6	31.0	38.2	84.1	
13	TX09D1172*	HRWW	TAMU	1957	616	12.0	31.5	36.8	84.3	
14	TAMcale 5019	TRIT	TAMU	1929	602	11.9	31.2	36.5	83.6	
15	TAM 204** (TX06V7266)	HRWW	TAMU	1847	602	12.0	32.6	36.4	84.0	
16	TAMcale 6331	TRIT	TAMU	1723	536	12.2	31.1	37.0	83.7	
17	P-919**	WB	Paramount Seeds	1585	530	13.4	33.4	34.2	86.9	
18	TAM 401**	HRWW	TAMU	1531	475	11.3	31.1	36.4	84.3	
19	TAMbar 501	HRWW	TAMU	1475	498	13.8	33.8	35.0	86.4	
20	Bob	Oat	UA	0	---	---	---	---	---	
21	Harrison	Oat	LSU	0	---	---	---	---	---	
22	Heavy Grazer 76-30	Oat	East Texas Seed	0	---	---	---	---	---	
23	NF95418	Oat	Noble Foundation	0	---	---	---	---	---	
24	Nora	Oat	UA	0	---	---	---	---	---	
25	RAM 99016	Oat	LSU	0	---	---	---	---	---	
26	TAMO 411	Oat	TAMU	0	---	---	---	---	---	
27	TAMO 606	WB	TAMU	0	---	---	---	---	---	
28	TX09CS031*	Oat	TAMU	0	---	---	---	---	---	
29	TX09CS1029*	Oat	TAMU	0	---	---	---	---	---	
30	TX10CAS279*	Oat	TAMU	0	---	---	---	---	---	
31	TX10CAS302*	Oat	TAMU	0	---	---	---	---	---	
32	Walken	Oat	UK	0	---	---	---	---	---	
				Mean	1280	677	12.3	31.6	36.5	84.6
				LSD (5%)	680	---	0.9	1.9	2.1	1.1
				CV (%)	33.2	---	3.6	2.8	2.75	0.6

[^]In Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

Multi-Year Small Grains Forage Trial - Lockett (Irrigated)

4 Year Rank	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)			
				4 Year Total [‡]	3 Year Total [†]	2 Year Total ^ᵇ	2014 Total ^ᵃ
1	TAMcale 6331	TRIT	TAMU	2.6	2.7	3.0	3.9
2	Maton	Rye	Noble Foundation	2.5	2.5	2.8	3.2
3	TAMcale 5019	TRIT	TAMU	2.5	2.7	3.0	4.0
4	TAM 204** (TX06V7266)	HRWW	TAMU	2.3	2.3	2.6	3.0
5	P-919**	WB	Paramount Seeds	2.2	2.4	2.6	2.6
6	Fannin	HRWW	Syngenta	2.2	2.2	2.5	2.6
7	Heavy Grazer 73-06	SRWW	East Texas Seed	2.1	2.2	2.4	2.6
8	Weathermaster 135**	HRWW	Unknown	2.0	2.0	2.2	2.6
9	TAMO 606	Oat	TAMU	1.9	2.1	2.3	2.1
10	TAM 401**	HRWW	TAMU	1.9	2.0	2.2	2.3
11	TAMO 411	Oat	TAMU	1.9	1.9	2.0	1.6
12	RAM 99016	Oat	LSU	1.9	1.9	2.1	1.8
13	TAMbar 501	WB	TAMU	1.8	1.9	2.0	2.3
14	Bob	Oat	UA	1.8	1.8	1.9	1.5
15	TAM 114 (TX07A001505)	HRWW	TAMU	-	2.3	2.5	2.9
16	Walken	Oat	UK	-	2.0	2.2	1.9
17	TX08V7313*	HRWW	TAMU	-	-	2.6	3.1
18	TX08A001249*	HRWW	TAMU	-	-	2.2	2.2
19	Heavy Grazer 76-30	Oat	East Texas Seed	-	-	2.1	1.8
20	TX09CS1029*	Oat	TAMU	-	-	1.9	1.8
21	TX10CAS279*	Oat	TAMU	-	-	1.8	1.4
22	Maton II	Rye	Noble Foundation	-	-	-	3.6
23	Elbon	Rye	Noble Foundation	-	-	-	3.5
24	TX09D1172*	HRWW	TAMU	-	-	-	2.8
25	TAM 305	HRWW	TAMU	-	-	-	2.8
26	TX09A001194*	HRWW	TAMU	-	-	-	2.6
27	NF96210	TRIT	Noble Foundation	-	-	-	2.5
28	Fridge**	TRIT	Elliot Plant Breeding	-	-	-	2.5
29	Sturdy 2K	HRWW	TAMU	-	-	-	2.2
30	NF95418	Oat	Noble Foundation	-	-	-	2.1
31	Harrison	Oat	LSU	-	-	-	2.1
32	Nora	Oat	UA	-	-	-	1.7
33	TX09CS031*	Oat	TAMU	-	-	-	1.6
34	TX10CAS302*	Oat	TAMU	-	-	-	1.4
Mean				2.11	2.18	2.33	2.43
LSD (5%)				0.30	0.34	0.44	0.76
CV (%)				19.1	18.7	17.9	19.2

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

[†]Yield average for 2014, 2013 and 2012

[‡]Yield average for 2014, 2013, 2012, and 2011

^ᵇYield average for 2014 and 2013

^ᵃTotal forage is the sum of all forage clippings

2014 Small Grains Forage Trial - Lockett (Irrigated)

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)			
				Clip 1 12/16/13	Clip 2 2/14/14	Clip 3 3/26/14	Total 3 Clips
1	TAMcale 5019	TRIT	TAMU	1.3	1.8	0.9	4.0
2	TAMcale 6331	TRIT	TAMU	1.1	2.1	0.7	3.9
3	Maton II	Rye	Noble Foundation	1.0	1.6	1.0	3.6
4	Elbon	Rye	Noble Foundation	1.3	1.2	1.0	3.5
5	Maton	Rye	Noble Foundation	1.1	1.3	0.9	3.2
6	TX08V7313*	HRWW	TAMU	1.2	1.5	0.5	3.1
7	TAM 204** (TX06V7266)	HRWW	TAMU	1.0	1.7	0.3	3.0
8	TAM 114 (TX07A001505)	HRWW	TAMU	1.1	1.3	0.6	2.9
9	TX09D1172*	HRWW	TAMU	0.7	1.7	0.4	2.8
10	TAM 305	HRWW	TAMU	0.9	1.2	0.6	2.8
11	TX09A001194*	HRWW	TAMU	1.1	1.0	0.6	2.6
12	Weathermaster 135**	HRWW	Unknown	0.7	1.1	0.8	2.6
13	Fannin	HRWW	Syngenta	1.0	1.2	0.3	2.6
14	Heavy Grazer 73-06	SRWW	East Texas Seed	0.7	1.4	0.4	2.6
15	P-919**	WB	Paramount Seeds	1.1	1.0	0.4	2.6
16	NF96210	TRIT	Noble Foundation	0.7	1.2	0.6	2.5
17	Fridge**	TRIT	Elliot Plant Breeding	1.1	0.8	0.6	2.5
18	TAM 401**	HRWW	TAMU	0.7	0.9	0.7	2.3
19	TAMbar 501	WB	TAMU	0.9	1.0	0.4	2.3
20	Sturdy 2K	HRWW	TAMU	0.6	1.2	0.4	2.2
21	TX08A001249*	HRWW	TAMU	0.9	0.9	0.5	2.2
22	NF95418	Oat	Noble Foundation	0.7	0.9	0.5	2.1
23	Harrison	Oat	LSU	0.8	0.9	0.5	2.1
24	TAMO 606	Oat	TAMU	0.8	0.9	0.4	2.1
25	Walken	Oat	UK	0.7	0.7	0.5	1.9
26	TX09CS1029*	Oat	TAMU	0.6	0.8	0.5	1.8
27	RAM 99016	Oat	LSU	0.6	0.8	0.4	1.8
28	Heavy Grazer 76-30	Oat	East Texas Seed	0.8	0.6	0.4	1.8
29	Nora	Oat	UA	0.5	0.7	0.5	1.7
30	TAMO 411	Oat	TAMU	0.6	0.7	0.4	1.6
31	TX09CS031*	Oat	TAMU	0.5	0.6	0.5	1.6
32	Bob	Oat	UA	0.6	0.5	0.4	1.5
33	TX10CAS279*	Oat	TAMU	0.4	0.7	0.2	1.4
34	TX10CAS302*	Oat	TAMU	0.6	0.5	0.3	1.4
Mean				0.83	1.07	0.53	2.43
LSD (5%)				0.35	0.62	0.31	0.76
CV (%)				25.5	35.6^b	35.5^b	19.2

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Total Forage Weight

^bTrials with a coefficient of variation (CV) \geq 25% contain excessive experimental error.

Readers should consider trials in a similar environment to confirm varietal yield.

2014 Small Grains Forage Trial - Lockett (Irrigated) Clip 1 (12/16/13) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)			
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM ^a
1	TAMcale 5019	TRIT	TAMU	2564	724	11.6	28.3	33.2	85.1
2	Elbon	Rye	Noble Foundation	2509	683	11.4	27.2	36.1	86.3
3	TX08V7313*	HRWW	TAMU	2357	590	10.7	25.0	39.0	83.9
4	TAMcale 6331	TRIT	TAMU	2261	646	11.7	28.6	36.4	85.0
5	P-919**	WB	Paramount Seeds	2247	609	11.4	27.1	36.6	86.1
6	Fridge**	TRIT	Elliot Plant Breeding	2178	599	12.2	27.5	39.9	85.0
7	TAM 114 (TX07A001505)	HRWW	TAMU	2178	553	11.1	25.4	36.8	84.9
8	TX09A001194*	HRWW	TAMU	2178	552	11.0	25.4	36.8	84.5
9	Maton	Rye	Noble Foundation	2137	575	11.4	26.9	36.8	85.9
10	Fannin	HRWW	Syngenta	2081	536	10.7	25.7	40.7	84.3
11	TAM 204** (TX06V7266)	HRWW	TAMU	1999	513	11.0	25.7	35.4	84.3
12	Maton II	Rye	Noble Foundation	1957	527	11.2	26.9	36.0	85.9
13	TAM 305	HRWW	TAMU	1875	493	10.6	26.3	37.1	84.8
14	TAMbar 501	WB	TAMU	1765	501	11.6	28.4	35.7	85.9
15	TX08A001249*	HRWW	TAMU	1764	463	10.8	26.2	33.1	85.2
16	TAMO 606	Oat	TAMU	1571	418	10.6	26.6	41.3	85.4
17	Heavy Grazer 76-30	Oat	East Texas Seed	1531	385	10.6	25.1	39.3	85.4
18	Harrison	Oat	LSU	1503	385	10.8	25.6	39.1	85.5
19	Weathermaster 135	HRWW	Unknown	1475	386	11.0	26.2	36.9	83.9
20	Heavy Grazer 73-06	SRWW	East Texas Seed	1448	386	10.0	26.7	33.5	84.7
21	NF96210	Oat	Noble Foundation	1392	396	11.9	28.4	39.2	84.6
22	NF95418	Oat	Noble Foundation	1351	350	10.6	25.9	37.5	86.5
23	TX09D1172*	HRWW	TAMU	1351	345	10.1	25.5	32.7	84.5
24	TAM 401**	HRWW	TAMU	1324	334	10.1	25.3	36.0	84.4
25	Walken	Oat	UK	1309	349	11.3	26.7	38.7	86.3
26	Sturdy 2K	HRWW	TAMU	1296	347	10.8	26.8	34.9	84.6
27	RAM 99016	Oat	LSU	1282	336	10.8	26.2	40.4	85.5
28	TX09CS1029*	Oat	TAMU	1227	331	11.2	27.0	39.4	86.5
29	Bob	Oat	UA	1199	322	10.5	26.8	40.0	85.5
30	TAMO 411	HRWW	TAMU	1144	290	10.4	25.4	38.6	85.4
31	TX10CAS302*	Oat	TAMU	1103	300	11.2	27.2	41.1	85.6
32	Nora	Oat	UA	1033	278	10.9	26.9	39.0	85.2
33	TX09CS031*	Oat	TAMU	979	259	10.9	26.4	37.8	85.9
34	TX10CAS279*	Oat	TAMU	896	226	10.7	25.2	38.1	85.9
Mean				1660	440	11.0	26.5	37.5	85.3
LSD (5%)				700	---	0.8	1.3	2.5	1.1
CV (%)				25.5	---	3.7	2.5	3.3	0.6

^aIn Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - Lockett (Irrigated) Clip 2 (2/14/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)			
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]
1	TAMcale 6331	TRIT	TAMU	4163	1156	11.9	27.8	39.6	83.0
2	TAMcale 5019	TRIT	TAMU	3667	1068	11.2	29.1	33.0	83.9
3	TAM 204** (TX06V7266)	HRWW	TAMU	3391	879	10.2	25.9	36.6	81.4
4	TX09D1172*	HRWW	TAMU	3391	934	10.8	27.5	35.7	82.5
5	Maton II	Rye	Noble Foundation	3143	789	10.5	25.1	37.4	85.8
6	TX08V7313*	HRWW	TAMU	2950	743	9.9	25.2	35.7	82.6
7	Heavy Grazer 73-06	SRWW	East Texas Seed	2826	834	11.1	29.5	37.0	82.1
8	Maton	Rye	Noble Foundation	2523	648	10.7	25.7	35.6	85.6
9	TAM 114 (TX07A001505)	HRWW	TAMU	2523	662	9.4	26.3	34.6	83.6
10	TAM 305	HRWW	TAMU	2468	723	10.4	29.3	33.3	82.9
11	NF96210	Oat	Noble Foundation	2454	706	12.8	28.8	38.3	82.2
12	Fannin	HRWW	Syngenta	2371	644	10.2	27.2	37.3	82.4
13	Sturdy 2K	HRWW	TAMU	2357	661	10.9	28.1	31.8	83.8
14	Elbon	Rye	Noble Foundation	2344	675	11.0	28.8	35.5	85.0
15	Weathermaster 135	HRWW	Unknown	2192	565	10.9	25.8	36.8	83.2
16	P-919**	WB	Paramount Seeds	2054	586	10.9	28.5	36.4	85.6
17	TAMbar 501	WB	TAMU	2026	536	10.9	26.5	38.8	83.0
18	TX09A001194*	HRWW	TAMU	1971	542	11.1	27.5	35.5	82.6
19	NF95418	Oat	Noble Foundation	1889	487	11.2	25.8	38.7	82.8
20	TAM 401**	HRWW	TAMU	1861	498	10.0	26.8	34.5	83.3
21	TX08A001249*	HRWW	TAMU	1792	516	10.4	28.8	34.4	81.5
22	TAMO 606	Oat	TAMU	1778	452	12.4	25.4	42.2	83.7
23	Harrison	Oat	LSU	1737	453	11.5	26.1	38.7	84.1
24	Fridge**	TRIT	Elliot Plant Breeding	1585	426	11.9	26.9	35.8	83.4
25	RAM 99016	Oat	LSU	1544	380	12.2	24.6	41.9	83.1
26	TX09CS1029*	Oat	TAMU	1503	385	12.3	25.7	40.7	83.1
27	Walken	Oat	UK	1489	410	11.8	27.5	38.1	84.2
28	Nora	Oat	UA	1447	389	12.2	26.9	41.0	82.9
29	TX10CAS279*	Oat	TAMU	1447	363	11.6	25.1	39.8	82.7
30	TAMO 411	HRWW	TAMU	1323	333	12.3	25.2	40.8	82.5
31	Heavy Grazer 76-30	Oat	East Texas Seed	1268	308	11.0	24.3	40.2	83.4
32	TX09CS031*	Oat	TAMU	1186	324	12.3	27.3	40.1	83.0
33	TX10CAS302*	Oat	TAMU	1048	275	12.8	26.2	42.7	82.1
34	Bob	Oat	UA	1048	264	11.7	25.2	39.4	81.5
Mean				2140	332	11.2	26.8	37.6	83.2
LSD (5%)				1240	---	1.1	2.5	3.2	1.7
CV (%)				35.6	---	4.8	4.5	4.2	1.0

[^]In Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - Lockett (Irrigated) Clip 3 (3/26/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)			
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]
1	Elbon	Rye	Noble Foundation	2095	472	9.3	22.5	43.2	81.4
2	Maton II	Rye	Noble Foundation	2068	388	6.7	18.8	41.2	82.0
3	TAMcale 5019	TRIT	TAMU	1861	437	9.9	23.5	40.2	82.4
4	Maton	Rye	Noble Foundation	1723	342	7.2	19.8	41.0	82.6
5	Weathermaster 135	HRWW	Unknown	1572	347	9.9	22.1	40.6	82.3
6	TAM 401**	HRWW	TAMU	1447	351	10.5	24.2	41.9	82.4
7	TAMcale 6331	TRIT	TAMU	1351	340	10.8	25.1	40.9	81.8
8	NF96210	Oat	Noble Foundation	1213	277	8.8	22.8	41.3	81.5
9	Fridge**	TRIT	Elliot Plant Breeding	1199	298	9.7	24.8	41.0	82.5
10	TAM 305	HRWW	TAMU	1199	299	9.0	24.9	40.3	82.7
11	TAM 114 (TX07A001505)	HRWW	TAMU	1172	266	9.3	22.7	42.2	81.1
12	TX09A001194*	HRWW	TAMU	1117	234	9.6	21.0	42.9	79.9
13	Walken	Oat	UK	1034	260	10.4	25.1	40.0	82.3
14	NF95418	Oat	Noble Foundation	993	204	8.6	20.6	41.6	82.3
15	TX09CS031*	Oat	TAMU	993	246	10.5	24.8	41.9	81.4
16	Harrison	Oat	LSU	965	251	10.9	26.0	39.9	82.8
17	Nora	Oat	UA	937	216	11.8	23.0	44.8	81.2
18	TX08V7313*	HRWW	TAMU	937	211	8.8	22.5	41.5	81.6
19	TX09CS1029*	Oat	TAMU	924	229	11.2	24.8	40.8	81.5
20	TX08A001249*	HRWW	TAMU	910	224	9.6	24.6	39.3	82.1
21	TX09D1172*	HRWW	TAMU	896	213	9.5	23.8	40.7	81.5
22	Heavy Grazer 73-06	SRWW	East Texas Seed	841	218	9.7	25.9	39.9	82.0
23	Sturdy 2K	HRWW	TAMU	841	210	9.1	25.0	40.2	82.2
24	RAM 99016	Oat	LSU	827	198	10.6	23.9	38.5	83.2
25	P-919**	WB	Paramount Seeds	800	173	10.1	21.6	41.6	82.3
26	TAMO 606	Oat	TAMU	800	182	11.3	22.7	42.6	81.3
27	TAMbar 501	WB	TAMU	786	191	11.4	24.4	41.8	81.4
28	Heavy Grazer 76-30	Oat	East Texas Seed	772	187	10.6	24.2	41.5	83.1
29	TAMO 411	HRWW	TAMU	758	193	10.5	25.4	41.1	81.9
30	Bob	Oat	UA	758	190	9.7	25.0	41.3	82.6
31	Fannin	HRWW	Syngenta	689	175	10.8	25.4	43.8	80.7
32	TAM 204** (TX06V7266)	HRWW	TAMU	689	185	10.0	26.8	43.6	80.7
33	TX10CAS302*	Oat	TAMU	593	133	11.5	22.4	43.6	79.7
34	TX10CAS279*	Oat	TAMU	482	117	11.1	24.2	43.7	80.1
Mean				1060	147	10.0	23.7	41.5	81.8
LSD (5%)				620	---	2.8	4.4	4.2	2.1
CV (%)				35.5	---	13.8	9.1	4.9	1.3

[^]In Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

Multi-Year Small Grains Forage Trial - Millersview (Dryland)

2 Year Rank	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)	
				2 Year Total ^b	2014 Total ^a
1	TAM 114 (TX07A001505)	HRWW	TAMU	4.2	4.8
2	TAMcale 5019	TRIT	TAMU	4.1	4.8
3	Weathermaster 135**	HRWW	Unknown	3.7	4.2
4	TAM 401**	HRWW	TAMU	3.5	3.7
5	TAM 204** (TX06V7266)	HRWW	TAMU	3.4	3.9
6	Fannin	HRWW	Syngenta	3.4	3.9
7	TAMbar 501	WB	TAMU	3.4	3.4
8	TX09D1172*	HRWW	TAMU	3.3	3.6
9	Walken	Oat	UK	3.3	3.5
10	Sturdy 2K	HRWW	TAMU	3.3	3.9
11	RAM 99016	Oat	LSU	3.2	3.3
12	Heavy Grazer 73-06	SRWW	East Texas Seed	3.0	3.2
13	TAMcale 6331	TRIT	TAMU	3.0	3.1
14	TAMO 606	Oat	TAMU	3.0	2.9
15	P-919**	WB	Paramount Seeds	2.9	3.4
16	Bob	Oat	UA	2.8	2.9
17	Harrison	Oat	LSU	2.6	2.9
18	TAMO 411	Oat	TAMU	2.4	2.6
19	TX08A001249*	HRWW	TAMU	-	4.2
20	TAM 305	HRWW	TAMU	-	4.0
21	TAM 113	HRWW	TAMU	-	3.9
22	Maton	Rye	Noble Foundation	-	3.8
23	TX08V7313*	HRWW	TAMU	-	3.7
24	TX09A001194*	HRWW	TAMU	-	3.6
25	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	-	3.5
26	Heavy Grazer 76-30	Oat	East Texas Seed	-	3.4
27	Fridge**	TRIT	Elliot Plant Breeding	-	3.3
28	Elbon	Rye	Noble Foundation	-	3.2
29	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	-	3.1
30	NF95418	Oat	Noble Foundation	-	3.1
31	TX09CS1029*	Oat	TAMU	-	2.9
32	TX10CAS279*	Oat	TAMU	-	2.9
33	Pete (Untreated)	HRWW	OSU	-	2.8
34	Nora	Oat	UA	-	2.8
35	TX09CS031*	Oat	TAMU	-	2.5
36	TX10CAS302*	Oat	TAMU	-	2.3
Mean				3.23	3.40
LSD (5%)				0.84	1.00
CV (%)				21.7	19.9

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^bYield average for 2014 and 2013

^aTotal forage is the sum of all forage clippings

2014 Small Grains Forage Trial: Millersview (Dryland)

2014 Rank	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)			
				Clip 1 12/18/13	Clip 2 2/20/14	Clip 3 4/4/14	Total 3 Clips
1	TAMcale 5019	TRIT	TAMU	0.8	0.6	3.3	4.7
2	TAM 113	HRWW	TAMU	1.0	0.6	3.0	4.5
3	TX10CAS279*	Oat	TAMU	0.9	0.6	3.0	4.5
4	Weathermaster 135**	HRWW	Unknown	1.0	4.3	2.7	4.2
5	TAM 401**	HRWW	TAMU	1.1	0.6	2.3	4.0
6	TAM 305	HRWW	TAMU	1.0	0.6	2.3	4.0
7	TAM 114 (TX07A001505)	HRWW	TAMU	1.3	0.5	2.1	4.0
8	Sturdy 2K	HRWW	TAMU	0.8	0.6	2.5	3.9
9	Maton	Rye	Noble Foundation	0.7	0.4	2.8	3.9
10	TAMbar 501	WB	TAMU	1.1	0.4	2.4	3.9
11	Fannin	HRWW	Syngenta	1.0	0.5	2.4	3.9
12	TX08A001249*	HRWW	TAMU	0.6	0.6	2.6	3.9
13	TX08V7313*	HRWW	TAMU	1.0	0.4	2.4	3.7
14	RAM 99016	Oat	LSU	1.1	0.6	1.9	3.6
15	Heavy Grazer 76-30	Oat	East Texas Seed	0.8	0.7	2.1	3.6
16	Walken	Oat	UK	1.2	0.8	1.5	3.5
17	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	1.0	0.5	2.0	3.5
18	Fridge**	TRIT	Elliot Plant Breeding	0.6	0.5	2.4	3.4
19	Elbon	Rye	Noble Foundation	0.7	0.3	2.3	3.4
20	P-919**	WB	Paramount Seeds	1.1	0.6	1.7	3.4
21	TAMcale 6331	TRIT	TAMU	0.9	0.3	2.1	3.4
22	TAMO 606	Oat	TAMU	0.8	0.6	1.9	3.3
23	NF95418	Oat	Noble Foundation	0.8	0.5	2.0	3.3
24	Heavy Grazer 73-06	SRWW	East Texas Seed	0.7	0.5	2.0	3.2
25	TX09A001194*	HRWW	TAMU	0.9	0.6	1.7	3.2
26	TX09CS1029*	Oat	TAMU	0.6	0.7	1.8	3.2
27	Bob	Oat	UA	0.8	0.6	1.7	3.1
28	Harrison	Oat	LSU	0.6	0.7	1.8	3.1
29	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	0.9	0.4	1.8	3.1
30	TAMO 411	Oat	TAMU	0.5	0.5	2.0	3.0
31	Nora	Oat	UA	0.8	0.6	1.5	3.0
32	TX09CS031*	Oat	TAMU	0.7	0.5	1.8	3.0
33	Pete (Untreated)	HRWW	OSU	0.7	0.4	1.7	2.8
34	TAM 204** (TX06V7266)	HRWW	TAMU	1.0	0.5	1.3	2.8
35	TX10CAS302*	Oat	TAMU	0.8	0.4	1.6	2.8
36	TX09D1172*	HRWW	TAMU	0.4	0.6	1.5	2.5
Mean				0.9	0.5	2.1	3.4
LSD (5%)				0.5	0.3	0.6	1.0
CV (%)				38.0^b	34.6^b	21.0	19.9

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^aTotal forage is the sum of all forage clippings

^bTrials with a coefficient of variation (CV) \geq 25% contain excessive experimental error.

Readers should consider trials in a similar environment to confirm varietal yield.

2014 Small Grains Forage Trial - Millersview (Dryland) Clip 1 (12/18/13) Forage Quality Data

2014 Rank ³	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)										Component of Forage (%)					
				Forage Yield	Total Digestible Nutrients	Crude Protein	Total Digestible Nutrients	Crude Protein	Acid Detergent Fiber	Neutral Detergent Fiber	Estimated Net Energy	Metabolizable Energy	Digestible Energy (Mcal/kg)	Net Energy - Maintenance	Net Energy - Gain	Net Energy - Lactation			
1	TAM 114 (TX07A001605)	HRWW	TAMU	2594	1836	473	70.8	18.2	17.4	37.3	60.6	1.16	0.75	0.48	0.73				
2	Walken	Oat	UK	2448	1738	513	71.0	21.0	16.7	34.2	60.8	1.17	0.76	0.48	0.74				
3	P-919**	WB	Paramount Seeds	2229	1585	493	71.1	22.1	16.4	36.7	60.9	1.17	0.76	0.48	0.74				
4	RAM 99016	Oat	LSU	2192	1554	483	70.9	22.0	17.0	34.6	60.7	1.16	0.76	0.48	0.74				
5	TAM 401**	HRWW	TAMU	2155	1524	395	70.7	18.3	17.6	36.1	60.6	1.18	0.75	0.48	0.73				
6	TAMbar 501	WB	TAMU	2146	1536	528	71.6	24.6	14.8	35.3	61.3	1.18	0.76	0.49	0.74				
7	Ablene Ag @ 90 lb/a	HRWW	Ablene Ag	2076	1471	401	70.9	19.3	17.1	36.0	60.7	1.16	0.75	0.48	0.73				
8	TAM 305	HRWW	TAMU	2063	1457	382	70.7	18.5	17.5	35.8	60.8	1.16	0.75	0.48	0.73				
9	Weathermaster 135**	HRWW	Unknown	2053	1457	404	70.9	19.7	16.9	35.7	60.8	1.16	0.76	0.48	0.74				
10	Fannin	HRWW	Syngenta	2035	1426	348	70.1	17.1	19.7	37.5	59.9	1.15	0.74	0.47	0.73				
11	TAM 204** (TX06V7266)	HRWW	TAMU	1994	1412	394	70.8	19.8	17.3	36.6	60.6	1.16	0.75	0.48	0.73				
12	TAM 113	HRWW	TAMU	1989	1399	348	70.3	17.5	18.8	37.0	60.2	1.16	0.75	0.47	0.73				
13	TX08V7313*	HRWW	TAMU	1910	1341	339	70.2	17.7	17.5	37.8	60.1	1.15	0.75	0.47	0.73				
14	TAMcale 6331	TRIT	TAMU	1844	1316	419	71.3	22.7	15.6	37.2	61.1	1.17	0.76	0.48	0.74				
15	TX10CAS279*	Oat	TAMU	1842	1304	396	70.8	21.5	17.4	33.3	60.6	1.16	0.75	0.48	0.73				
16	TX09A001194*	HRWW	TAMU	1797	1270	355	70.6	19.8	17.9	36.1	60.5	1.16	0.75	0.48	0.73				
17	Ablene Ag @ 45 lb/a	HRWW	Ablene Ag	1751	1240	335	70.8	19.1	17.3	35.9	60.6	1.16	0.75	0.48	0.73				
18	Bob	Oat	UA	1688	1194	323	70.7	19.1	17.6	34.2	60.6	1.16	0.75	0.48	0.73				
19	Sturdy 2K	HRWW	TAMU	1663	1178	305	70.9	18.4	17.2	34.6	60.7	1.16	0.75	0.48	0.73				
20	TAMcale 5019	TRIT	TAMU	1653	1188	359	71.9	21.7	13.8	33.8	61.6	1.18	0.77	0.49	0.75				
21	Nora	Oat	UA	1634	1157	352	70.8	21.6	17.3	33.8	61.6	1.18	0.77	0.49	0.75				
22	TAMO 606	Oat	TAMU	1622	1152	357	71.0	22.0	16.6	35.3	60.8	1.17	0.76	0.48	0.74				
23	NF95418	Oat	Noble Foundation	1618	1144	302	70.7	18.7	17.7	33.5	60.5	1.16	0.75	0.48	0.73				
24	TX10CAS302*	Oat	TAMU	1559	1109	352	71.1	22.6	16.3	32.7	60.9	1.17	0.76	0.48	0.74				
25	Heavy Grazer 76-30	Oat	East Texas Seed	1549	1095	336	70.7	21.7	17.6	34.6	60.6	1.16	0.75	0.48	0.73				
26	Heavy Grazer 73-06	SRWW	East Texas Seed	1469	1026	301	69.8	20.5	20.4	40.6	59.7	1.15	0.74	0.47	0.72				
27	Elbon	Rye	Noble Foundation	1459	1050	320	71.9	22.0	13.7	32.4	61.7	1.18	0.77	0.49	0.75				
28	TX09CS031*	Oat	TAMU	1435	1019	330	71.0	23.0	16.7	35.1	60.8	1.17	0.76	0.48	0.74				
29	Maton	Rye	Noble Foundation	1397	1010	334	72.3	23.9	12.4	32.5	62.0	1.19	0.78	0.50	0.75				
30	Pete (Untreated)	HRWW	OSU	1370	970	281	70.8	20.5	17.5	35.8	60.6	1.16	0.75	0.48	0.73				
31	TX08A001249*	HRWW	TAMU	1247	890	276	71.4	22.1	15.6	35.5	61.1	1.17	0.76	0.48	0.74				
32	Harrison	Oat	LSU	1230	877	284	71.3	23.1	15.8	34.9	61.1	1.17	0.76	0.48	0.74				
33	TX09CS1029*	Oat	TAMU	1206	855	272	70.9	22.5	17.1	34.2	60.7	1.16	0.76	0.48	0.73				
34	Fridge**	TRIT	Elliot Plant Breeding	1204	862	273	71.6	22.7	14.8	34.3	61.3	1.18	0.76	0.49	0.74				
35	TAMO 411	Oat	TAMU	977	692	205	70.8	21.0	17.3	33.3	60.6	1.16	0.75	0.48	0.73				
36	TX09D1172*	HRWW	TAMU	866	619	190	71.5	22.0	15.1	34.5	61.2	1.17	0.76	0.49	0.74				
				Mean	1754	1221	354	70.9	20.5	17.0	35.3	60.7	1.17	0.76	0.48	0.74			
				LSD (5%)	1021	---	---	0.7	2.6	2.4	2.1	0.7	0.01	0.01	0.01	0.01	0.01		
				CV (%)	38.0	---	---	0.6	8.3	7.9	3.3	0.6	0.8	0.8	1.1	0.6	0.6		

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

³2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - Millersview (Dryland) Clip 2 (2/20/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)				Component of Forage (%)						Net Energy - Lactation		
				Forage Yield	Total Digestible Nutrients	Crude Protein	Total Digestible Nutrients	Crude Protein	Acid Detergent Fiber	Neutral Detergent Fiber	Estimated Net Energy	Metabolizable Energy	Digestible Energy (Mcal/kg)		Net Energy - Maintenance	Net Energy - Gain
1	Walken	Oat	UK	1688	1182	279	70.0	16.5	19.8	35.5	59.9	1.15	0.74	0.47	0.73	
2	TX09CS1029*	Oat	TAMU	1493	1052	258	70.4	17.3	18.5	35.2	60.3	1.16	0.75	0.47	0.73	
3	Heavy Grazer 76-30	Oat	East Texas Seed	1381	972	238	70.4	17.2	18.6	36.9	60.3	1.16	0.75	0.47	0.73	
4	Harrison	Oat	LSU	1333	938	238	70.4	17.9	18.7	37.7	60.2	1.16	0.75	0.47	0.73	
5	TAM 401**	HRWW	TAMU	1269	898	227	70.8	17.9	17.3	40.9	60.6	1.16	0.75	0.48	0.73	
6	Nora	Oat	UA	1268	888	225	70.1	17.8	19.6	37.2	60.0	1.15	0.74	0.47	0.73	
7	TAMO 606	Oat	TAMU	1264	886	199	70.1	15.8	16.8	36.5	59.9	1.15	0.74	0.47	0.73	
8	TAM 305	HRWW	TAMU	1261	895	231	71.0	18.3	16.7	42.3	60.8	1.17	0.76	0.48	0.74	
9	TX09D1172*	HRWW	TAMU	1248	891	255	71.4	20.5	15.6	43.2	61.1	1.17	0.76	0.48	0.74	
10	P-919*	WB	Paramount Seeds	1246	890	269	71.4	21.6	15.3	38.5	61.2	1.17	0.76	0.48	0.74	
11	TX08A001249*	HRWW	TAMU	1224	875	242	71.5	19.8	15.1	42.3	61.3	1.17	0.76	0.49	0.74	
12	TX10CA5279*	Oat	TAMU	1218	856	240	70.3	19.7	19.0	37.9	60.2	1.15	0.75	0.47	0.73	
13	TAM 113	HRWW	TAMU	1173	834	223	71.1	19.0	16.4	43.0	60.9	1.17	0.76	0.48	0.74	
14	Sturdy 2K	HRWW	TAMU	1158	818	204	70.6	17.6	17.9	42.7	60.5	1.16	0.75	0.47	0.73	
15	TAMcale 5019	TRIT	TAMU	1157	828	242	71.6	20.9	14.8	40.1	61.4	1.18	0.77	0.49	0.74	
16	RAM 99016	Oat	LSU	1146	802	189	70.0	16.5	20.1	38.5	59.8	1.15	0.74	0.47	0.72	
17	TX08A001194*	HRWW	TAMU	1130	805	226	71.3	20.0	15.8	41.7	61.1	1.17	0.76	0.48	0.74	
18	Bob	Oat	UA	1101	772	188	70.1	17.1	19.6	38.1	60.0	1.15	0.74	0.47	0.73	
19	TAM 114 (TX07A001505)	HRWW	TAMU	1056	751	206	71.2	18.7	16.2	40.9	61.0	1.17	0.76	0.48	0.74	
20	TAM 204** (TX06V7286)	HRWW	TAMU	1053	748	197	71.0	18.7	16.6	41.0	60.8	1.17	0.76	0.48	0.74	
21	TAMO 411	Oat	TAMU	1037	726	173	70.0	16.7	19.8	37.1	59.9	1.15	0.74	0.47	0.73	
22	NF95418	Oat	Noble Foundation	1004	706	162	70.3	16.1	18.9	36.4	60.2	1.15	0.75	0.47	0.73	
23	TX09CS031*	Oat	TAMU	999	699	178	70.0	17.9	19.8	37.7	59.9	1.15	0.74	0.47	0.73	
24	Fannin	HRWW	Syngenta	976	689	169	70.6	17.3	18.2	42.7	60.4	1.16	0.75	0.47	0.73	
25	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	973	699	225	71.9	23.1	13.9	42.4	61.6	1.18	0.77	0.49	0.75	
26	Weathermaster 135**	HRWW	Unknown	962	687	196	71.4	20.4	15.3	42.8	61.2	1.17	0.76	0.48	0.74	
27	Fridge**	TRIT	Elliot Plant Breeding	920	660	196	71.7	21.3	14.4	37.4	61.5	1.18	0.77	0.49	0.74	
28	Heavy Grazer 73-06	SRWW	East Texas Seed	901	637	176	70.7	19.6	17.5	41.2	60.6	1.16	0.75	0.48	0.73	
29	TX10CAS302*	Oat	TAMU	885	622	161	70.3	16.2	18.9	38.9	60.2	1.15	0.75	0.47	0.73	
30	TAMbar 501	WB	TAMU	859	611	181	71.1	21.0	16.3	38.5	60.9	1.17	0.76	0.48	0.74	
31	Pete (Untreated)	HRWW	OSU	858	611	159	71.2	18.5	16.0	39.4	61.0	1.17	0.76	0.48	0.74	
32	Maton	Rye	Noble Foundation	810	578	162	71.3	20.1	15.6	38.1	61.1	1.17	0.76	0.48	0.74	
33	TX08V7313*	HRWW	TAMU	752	535	135	71.1	18.0	16.4	42.7	60.9	1.17	0.76	0.48	0.74	
34	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	736	528	163	71.7	22.2	14.3	41.8	61.5	1.18	0.77	0.49	0.74	
35	Elbon	Rye	Noble Foundation	693	492	123	70.9	17.7	16.9	39.0	60.7	1.16	0.76	0.48	0.74	
36	TAMcale 6531	TRIT	TAMU	642	459	165	71.5	25.6	14.9	40.4	61.3	1.17	0.76	0.49	0.74	
				Mean	1080	764	70.8	19.0	17.2	39.6	60.7	1.16	0.75	0.48	0.73	
				LSD (5%)	524	---	0.7	3.2	2.3	1.7	0.7	0.01	0.01	0.01	0.01	0.01
				CV (%)	34.6	---	0.7	12.0	9.6	3.0	0.8	0.7	1.0	1.4	0.8	0.8

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - Millersview (Dryland) Clip 3 (4/4/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)				Component of Forage (%)					Digestible Energy (Mcal/kg)		
				Forage Yield	Total Digestible Nutrients	Crude Protein	Total Digestible Nutrients	Crude Protein	Acid Detergent Fiber	Neutral Detergent Fiber	Estimated Net Energy	Metabolizable Energy	Net Energy - Maintenance	Net Energy - Lactation	
1	TAMcale 5019	TRIT	TAMU	6619	4420	619	66.8	9.3	30.4	55.3	56.9	1.10	0.70	0.43	0.69
2	TAM 113	HRWW	TAMU	5928	4027	638	67.9	10.8	26.6	51.2	56.0	1.12	0.71	0.44	0.70
3	TX10CAS279*	Oat	TAMU	5925	4003	624	67.6	10.5	27.8	52.4	57.7	1.11	0.71	0.44	0.70
4	Maton	Rye	Noble Foundation	5600	3679	422	65.0	7.5	36.1	63.3	55.3	1.07	0.67	0.40	0.67
5	Wheatmaster 135**	HRWW	Unknown	5400	3666	562	67.9	10.4	26.8	50.6	57.9	1.11	0.71	0.44	0.70
6	TX08A001249*	HRWW	TAMU	5271	3581	615	67.9	11.7	26.6	52.0	58.0	1.12	0.71	0.44	0.70
7	Sturdy 2K	HRWW	TAMU	5047	3416	509	67.7	10.1	27.4	52.5	57.8	1.11	0.71	0.44	0.70
8	TX08V7313*	HRWW	TAMU	4815	3274	528	68.0	11.0	26.4	52.4	56.1	1.12	0.71	0.44	0.70
9	Fridge**	TRIT	Elliot Plant Breeding	4767	3167	489	66.4	10.3	31.5	59.2	56.6	1.09	0.69	0.42	0.69
10	TAMbar 501	WB	TAMU	4753	3223	510	67.8	10.7	27.0	52.0	57.9	1.11	0.71	0.44	0.70
11	Fannin	HRWW	Syngenta	4741	3179	463	67.1	9.8	29.5	55.1	57.2	1.10	0.70	0.43	0.69
12	TAM 305	HRWW	TAMU	4687	3174	499	67.1	10.7	27.3	51.8	57.8	1.11	0.71	0.44	0.70
13	Elbon	Rye	Noble Foundation	4666	3053	354	65.4	7.6	34.8	60.0	55.7	1.07	0.68	0.41	0.67
14	TAM 401**	HRWW	TAMU	4658	3158	492	67.8	10.6	27.1	52.7	57.9	1.11	0.71	0.44	0.70
15	TAM 114 (TX07A001505)	HRWW	TAMU	4286	2901	429	67.7	10.0	27.4	51.8	57.8	1.11	0.71	0.44	0.70
16	TAMcale 6331	TRIT	TAMU	2829	2829	391	66.3	9.2	31.9	56.9	56.5	1.09	0.69	0.42	0.68
17	Heavy Grazer 76-30	Oat	East Texas Seed	4223	2853	508	67.6	12.0	27.8	52.6	57.6	1.11	0.71	0.44	0.70
18	Heavy Grazer 73-06	SRWW	East Texas Seed	4089	2771	434	67.8	10.6	27.2	50.5	57.0	1.11	0.71	0.44	0.70
19	TAMO 411	Oat	TAMU	4032	2739	433	67.9	10.7	26.6	50.8	58.0	1.12	0.71	0.44	0.70
20	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	4025	2731	483	67.9	12.0	26.9	53.1	57.9	1.11	0.71	0.44	0.70
21	NF95418	Oat	Noble Foundation	3905	2624	402	67.2	10.3	29.0	52.8	57.3	1.10	0.70	0.43	0.69
22	RAM 99016	Oat	LSU	3844	2589	454	67.3	11.8	28.6	53.8	57.4	1.11	0.70	0.43	0.69
23	TAMO 606	Oat	TAMU	3782	2469	446	68.4	11.8	25.3	50.0	56.4	1.12	0.72	0.45	0.71
24	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	3654	2469	421	67.6	11.5	27.8	53.2	57.6	1.11	0.71	0.44	0.70
25	TX09CS1029*	Oat	TAMU	3653	2465	465	67.5	12.7	28.1	54.2	57.6	1.11	0.71	0.44	0.70
26	Harrison	Oat	LSU	3613	2426	433	67.2	12.0	29.1	55.2	57.3	1.10	0.70	0.43	0.69
27	TX09CS031*	Oat	TAMU	3520	2363	397	67.1	11.3	29.2	54.4	57.3	1.10	0.70	0.43	0.69
28	TX09A001194*	HRWW	TAMU	3497	2363	435	67.6	12.4	27.9	51.2	57.6	1.11	0.71	0.44	0.70
29	Pete (Untreated)	HRWW	OSU	3414	2303	363	67.5	10.6	28.2	52.5	57.5	1.11	0.71	0.43	0.70
30	Bob	Oat	UA	3395	2292	421	67.5	12.4	28.0	52.0	57.6	1.11	0.71	0.44	0.70
31	P-919**	WB	Paramount Seeds	3312	2286	439	69.0	13.3	23.1	46.0	59.0	1.13	0.73	0.45	0.71
32	TX10CAS302*	Oat	TAMU	3131	2097	379	67.0	12.1	29.7	55.6	57.1	1.10	0.70	0.43	0.69
33	Nora	Oat	UA	3056	2065	353	67.6	11.5	27.8	51.7	57.7	1.11	0.71	0.44	0.70
34	Walken	Oat	UK	2846	2026	440	68.8	14.9	23.9	44.5	58.8	1.13	0.72	0.45	0.71
35	TX09D1172*	HRWW	TAMU	2903	1968	347	67.8	12.0	27.1	52.5	57.9	1.11	0.71	0.44	0.70
36	TAM 204** (TX06V7266)	HRWW	TAMU	2580	1732	302	67.1	11.7	29.2	53.7	57.3	1.10	0.70	0.43	0.69
			Mean	4224	2847	458	67.5	11.0	28.2	53.1	57.5	1.11	0.71	0.43	0.70
			LSD (5%)	1241	---	---	0.8	1.9	2.7	3.6	0.8	0.01	1.2	0.00	0.9
			CV (%)	21.0	---	---	0.9	12.2	6.7	4.8	0.9	0.9	1.2	1.8	0.9

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

*2014 Rank is based on Forage Yield

2014 Small Grains Forage Trial - San Angelo (Dryland)

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)	
				Clip 1 1/1/14	Total 1 Clip ^b
1	NF95418	Oat	Noble Foundation	1.5	1.5
2	TX09CS1029*	Oat	TAMU	1.4	1.4
3	TAMO 606	Oat	TAMU	1.4	1.4
4	Nora	Oat	UA	1.4	1.4
5	Walken	Oat	UK	1.4	1.4
6	Fannin	HRWW	Syngenta	1.4	1.4
7	TX10CAS279*	Oat	TAMU	1.3	1.3
8	TX10CAS302*	Oat	TAMU	1.3	1.3
9	RAM 99016	Oat	LSU	1.3	1.3
10	Bob	Oat	UA	1.3	1.3
11	TAMO 411	Oat	TAMU	1.3	1.3
12	TAM 113	HRWW	TAMU	1.3	1.3
13	Heavy Grazer 76-30	Oat	East Texas Seed	1.3	1.3
14	TAMbar 501	WB	TAMU	1.3	1.3
15	P-919**	WB	Paramount Seeds	1.2	1.2
16	TAM 401**	HRWW	TAMU	1.2	1.2
17	Harrison	Oat	LSU	1.2	1.2
18	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	1.2	1.2
19	TAM 204** (TX06V7266)	HRWW	TAMU	1.2	1.2
20	TAM 114 (TX07A001505)	HRWW	TAMU	1.1	1.1
21	Weathermaster 135**	HRWW	Unknown	1.1	1.1
22	TAM 305	HRWW	TAMU	1.1	1.1
23	Sturdy 2K	HRWW	TAMU	1.1	1.1
24	Pete (Untreated)	HRWW	OSU	1.1	1.1
25	TX09CS031*	Oat	TAMU	1.1	1.1
26	Heavy Grazer 73-06	SRWW	East Texas Seed	1.1	1.1
27	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	1.1	1.1
28	TX08V7313*	HRWW	TAMU	1.0	1.0
29	TX09D1172*	HRWW	TAMU	1.0	1.0
30	TX08A001249*	HRWW	TAMU	1.0	1.0
31	TX09A001194*	HRWW	TAMU	1.0	1.0
32	TAMcale 6331	TRIT	TAMU	0.9	0.9
33	Fridge**	TRIT	Elliot Plant Breeding	0.9	0.9
34	TAMcale 5019	TRIT	TAMU	0.9	0.9
35	Elbon	Rye	Noble Foundation	0.7	0.7
36	Maton	Rye	Noble Foundation	0.7	0.7
Mean				1.17	1.17
LSD (5%)				0.31	0.31
CV (%)				19.1	19.1

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

^a2014 Rank is based on Total Forage Weight

^bForage removal limited to one fall harvest due to drought

2014 Small Grains Forage Trial - San Angelo (Dryland) Clip 1 (1/1/14) Forage Quality Data

2014 Rank ¹	Variety	Class ¹	Developer	Component of Forage (%)										Digestible Energy (Mcal/kg)		
				Forage Yield	Total Digestible Nutrients	Crude Protein	Total Nutrients	Crude Protein	Acid Detergent Fiber	Neutral Detergent Fiber	Estimated Net Energy	Metabolizable Energy	Net Energy - Maintenance	Net Energy - Gain	Net Energy - Lactation	
1	NF95418	Oat	Noble Foundation	3024	2182	693	72.1	22.9	13.0	33.0	61.9	1.18	0.77	0.49	0.75	
2	TX09CS1029*	Oat	TAMU	2875	2060	625	71.7	21.8	14.5	32.2	61.4	1.18	0.77	0.49	0.74	
3	TAMO 606	Oat	TAMU	2862	2055	648	71.8	22.6	14.1	33.1	61.5	1.18	0.77	0.49	0.75	
4	Nora	Oat	UA	2839	2036	636	71.7	22.4	14.4	32.9	61.5	1.18	0.77	0.49	0.74	
5	Walken	Oat	UK	2776	2011	663	72.5	23.9	12.0	32.0	62.1	1.19	0.78	0.50	0.75	
6	Fannin	HRWW	Syngenta	2767	2004	604	72.4	21.8	12.1	34.1	62.1	1.19	0.78	0.50	0.75	
7	TX10CAS279*	Oat	TAMU	2698	1933	572	71.6	21.2	14.6	32.8	61.4	1.18	0.77	0.49	0.74	
8	TX10CAS302*	Oat	TAMU	2692	1945	626	72.2	23.3	12.7	31.9	61.9	1.19	0.77	0.50	0.75	
9	RAM 99016	Oat	LSU	2661	1917	589	72.1	22.1	13.3	31.7	61.8	1.18	0.77	0.49	0.75	
10	Bob	Oat	UA	2659	1915	625	72.0	23.5	13.5	33.2	61.7	1.18	0.77	0.49	0.75	
11	TAMO 411	Oat	TAMU	2658	1907	546	71.8	20.5	14.3	31.9	61.5	1.18	0.77	0.49	0.74	
12	TAM 113	HRWW	TAMU	2626	1907	610	72.6	23.2	11.4	34.7	62.3	1.19	0.78	0.50	0.75	
13	Heavy Grazer 76-30	Oat	East Texas Seed	2608	1874	560	71.9	21.5	13.8	32.5	61.6	1.18	0.77	0.49	0.75	
14	TAMbar 501	WB	TAMU	2508	1829	650	72.9	25.9	10.5	33.0	62.6	1.20	0.78	0.50	0.76	
15	P-919**	WB	Paramount Seeds	2457	1786	552	72.7	22.5	11.2	32.6	62.4	1.19	0.78	0.50	0.75	
16	TAM 401**	HRWW	TAMU	2426	1764	555	72.7	22.9	11.1	34.0	62.4	1.19	0.78	0.50	0.76	
17	Harrison	Oat	LSU	2391	1714	489	71.7	20.5	14.4	32.2	61.4	1.18	0.77	0.49	0.74	
18	Abilene Ag @ 45 lb/a	HRWW	Abilene Ag	2312	1683	592	72.8	25.6	10.9	34.8	62.5	1.20	0.78	0.50	0.76	
19	TAM 204** (TX06R/7266)	HRWW	TAMU	2305	1681	549	73.0	23.8	10.4	34.1	62.6	1.20	0.78	0.50	0.76	
20	TAM 114 (TX07A001505)	HRWW	TAMU	2267	1647	522	72.6	23.0	11.4	34.2	62.3	1.19	0.78	0.50	0.75	
21	Weathermaster 135**	HRWW	Unknown	2233	1622	533	72.6	23.9	11.4	33.7	62.3	1.19	0.78	0.50	0.75	
22	TAM 305	HRWW	TAMU	2225	1622	529	72.9	23.8	10.6	33.5	62.5	1.20	0.78	0.50	0.76	
23	Sturdy 2K	HRWW	TAMU	2207	1602	527	72.6	23.9	11.6	33.8	62.3	1.19	0.78	0.50	0.75	
24	Pete (Untreated)	HRWW	OSU	2188	1594	568	72.8	25.9	10.7	34.0	62.5	1.20	0.78	0.50	0.76	
25	TX09CS031*	Oat	TAMU	2173	1561	515	71.8	23.7	14.0	33.9	61.6	1.18	0.77	0.49	0.75	
26	Heavy Grazer 73-06	SRWW	East Texas Seed	2149	1562	514	72.7	23.9	11.2	33.5	62.4	1.19	0.78	0.50	0.76	
27	Abilene Ag @ 90 lb/a	HRWW	Abilene Ag	2123	1556	563	73.3	26.5	9.3	34.1	62.9	1.20	0.79	0.51	0.76	
28	TX08V7313*	HRWW	TAMU	2097	1519	466	72.4	22.2	12.1	33.8	62.1	1.19	0.78	0.50	0.75	
29	TX09D1172*	HRWW	TAMU	2033	1479	440	72.7	21.6	11.1	31.1	62.4	1.19	0.78	0.50	0.76	
30	TX08A001249*	HRWW	TAMU	2022	1470	480	72.7	23.8	11.1	32.8	62.4	1.19	0.78	0.50	0.76	
31	TX09A001194*	HRWW	TAMU	1976	1437	466	72.7	23.6	11.1	32.6	62.4	1.19	0.78	0.50	0.76	
32	TAMcale 6331	TRIT	TAMU	1893	1386	524	73.2	27.7	9.5	33.8	62.9	1.20	0.79	0.51	0.76	
33	Fridge**	TRIT	Elliot Plant Breeding	1784	1315	496	73.7	27.8	7.9	32.8	63.3	1.21	0.80	0.51	0.77	
34	TAMcale 5019	TRIT	TAMU	1737	1274	442	73.4	25.5	9.0	31.6	63.0	1.20	0.79	0.51	0.76	
35	Elbon	Rye	Noble Foundation	1433	1055	385	73.6	26.8	8.3	31.7	63.2	1.21	0.79	0.51	0.77	
36	Maton	Rye	Noble Foundation	1351	997	379	73.8	28.1	7.6	31.2	63.4	1.21	0.80	0.51	0.77	
				Mean	2340	1692	72.6	23.7	11.7	33.0	62.2	1.19	0.78	0.50	0.75	
				LSD (5%)	620	---	0.5	2.4	1.6	1.1	0.4	0.01	0.01	0.01	0.01	0.5
				CV (%)	19.1	---	0.5	7.3	9.6	2.3	0.5	0.5	0.6	0.9	0.5	0.5

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Winter Barley (WB)

²2014 Rank is based on Forage Yield

Multi-Year Small Grains Forage Trial - College Station (Irrigated)

4 Year Rank	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)			
				4 Year Total [‡]	3 Year Total [†]	2 Year Total ^b	2014 Total ^a
1	P-919**	WB	Paramount Seeds	3.7	3.9	3.8	3.1
2	TAMbar 501	WB	TAMU	3.6	3.7	3.9	3.2
3	TAMO 606	Oat	TAMU	3.4	3.5	3.6	3.2
4	TAMO 411	Oat	TAMU	3.3	3.5	3.6	3.0
5	Heavy Grazer 73-06	SRWW	East Texas Seed	3.3	3.5	3.3	2.6
6	TAM 204** (TX06V7266)	HRWW	TAMU	3.3	3.4	3.1	2.8
7	RAM 99016	Oat	LSU	3.2	3.5	3.7	2.9
8	Weathermaster 135**	HRWW	Unknown	3.2	3.4	3.5	3.1
9	Bob	Oat	UA	3.1	3.4	3.5	3.1
10	TAM 401**	HRWW	TAMU	3.1	3.4	3.3	2.4
11	Maton	Rye	Noble Foundation	3.1	3.4	3.2	3.1
12	TAMcale 6331	TRIT	TAMU	3.1	3.2	3.0	2.6
13	Fannin	HRWW	Syngenta	3.1	3.2	2.8	2.6
14	TAMcale 5019	TRIT	TAMU	2.9	3.1	2.9	2.8
15	TAM 114 (TX07A001505)	HRWW	TAMU	-	3.6	3.7	3.3
16	Walken	Oat	UK	-	3.4	3.7	2.9
17	NF95418	Oat	Noble Foundation	-	-	4.1	3.5
18	TAMTBO	Ryegrass	TAMU	-	-	4.0	3.9
19	Nelson	Ryegrass	TAMU	-	-	4.0	3.7
20	Prine	Ryegrass	Ragan and Massey	-	-	3.7	3.5
21	Heavy Grazer 76-30	Oat	East Texas Seed	-	-	3.7	3.1
22	TX10CAS279*	Oat	TAMU	-	-	3.5	2.8
23	TX08A001249*	HRWW	TAMU	-	-	3.5	2.7
24	TX09CS1029*	Oat	TAMU	-	-	3.4	2.7
25	Elbon	Rye	Noble Foundation	-	-	3.1	2.8
26	Heavy Grazer Ryegrass	Ryegrass	East Texas Seed	-	-	-	3.5
27	Harrison	Oat	LSU	-	-	-	3.2
28	Nora	Oat	UA	-	-	-	3.2
29	TX09D1172*	HRWW	TAMU	-	-	-	3.2
30	TX09A001194*	HRWW	TAMU	-	-	-	3.0
31	TX08V7313*	HRWW	TAMU	-	-	-	3.0
32	Fridge**	TRIT	Elliot Plant Breeding	-	-	-	2.9
33	Sturdy 2K	HRWW	TAMU	-	-	-	2.9
34	TAM 305	HRWW	TAMU	-	-	-	2.8
35	Maton II	Rye	Noble Foundation	-	-	-	2.7
36	NF96210	TRIT	Noble Foundation	-	-	-	2.7
37	TX09CS031*	Oat	TAMU	-	-	-	2.7
38	Hays	SB	MSU	-	-	-	2.6
39	TX10CAS302*	Oat	TAMU	-	-	-	2.5
40	Hockett	SB	MSU	-	-	-	2.3
41	Craft	SB	UMN	-	-	-	2.2
42	MT103041-4*	SB	MSU	-	-	-	2.2
Mean				3.24	3.43	3.49	2.92
LSD (5%)				0.31	0.38	0.48	0.44
CV (%)				13.9	13.9	12.1	10.8

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

Ryegrass entries were all Tetraploids

^bYield average for 2014 and 2013

[†]Yield average for 2014, 2013 and 2012

[‡]Yield average for 2014, 2013, 2012, and 2011

^aTotal forage is the sum of all forage clippings

2014 Small Grains Forage Trial - College Station (Irrigated)

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (ton/a)				
				Clip 1 12/12/13	Clip 2 2/3/14	Clip 3 3/7/14	Clip 4 4/9/14	Total 4 Clips
1	TAMTBO	Ryegrass	TAMU	0.8	0.8	1.0	1.3	3.9
2	Nelson	Ryegrass	TAMU	0.9	0.8	0.8	1.3	3.7
3	Heavy Grazer Ryegrass	Ryegrass	East Texas Seed	0.7	0.8	0.9	1.1	3.5
4	Prine	Ryegrass	Ragan and Massey	0.7	0.7	0.9	1.1	3.5
5	NF95418	Oat	Noble Foundation	1.2	0.3	0.8	1.2	3.5
6	TAM 114 (TX07A001505)	HRWW	TAMU	1.0	0.5	0.7	1.1	3.3
7	Harrison	Oat	LSU	1.2	0.3	0.6	1.1	3.2
8	TAMbar 501	WB	TAMU	0.9	0.1	0.5	1.7	3.2
9	TAMO 606	Oat	TAMU	1.1	0.3	0.7	1.2	3.2
10	TX09D1172*	HRWW	TAMU	0.9	0.3	0.8	1.3	3.2
11	Nora	Oat	UA	1.2	0.3	0.6	1.1	3.2
12	Maton	Rye	Noble Foundation	0.6	0.3	0.7	1.5	3.1
13	P-919**	WB	Paramount Seeds	0.9	0.4	1.0	0.8	3.1
14	Weathermaster 135**	HRWW	Unknown	0.9	0.4	0.8	0.9	3.1
15	Bob	Oat	UA	1.2	0.2	0.7	1.1	3.1
16	Heavy Grazer 73-06	SRWW	East Texas Seed	1.1	0.3	0.6	1.0	3.0
17	TAMO 411	Oat	TAMU	1.1	0.3	0.6	1.0	3.0
18	TX09A001194*	HRWW	TAMU	1.0	0.4	0.8	0.9	3.0
19	TX08V7313*	HRWW	TAMU	0.9	0.3	0.6	1.2	3.0
20	Sturdy 2K	HRWW	TAMU	0.7	0.5	0.8	1.0	2.9
21	Fridge**	TRIT	Elliot Plant Breeding	0.9	0.2	0.5	1.3	2.9
22	RAM 99016	Oat	LSU	1.2	0.2	0.6	0.9	2.9
23	Walken	Oat	UK	1.1	0.3	0.6	0.8	2.9
24	TAM 305	HRWW	TAMU	0.8	0.5	0.6	0.8	2.8
25	TAM 204** (TX06V7266)	HRWW	TAMU	0.8	0.5	0.8	0.6	2.8
26	TAMcale 5019	TRIT	TAMU	0.8	0.4	0.7	0.9	2.8
27	TX10CAS279*	Oat	TAMU	0.8	0.3	0.6	1.0	2.8
28	Elbon	Rye	Noble Foundation	0.4	0.2	0.8	1.4	2.8
29	TX08A001249*	HRWW	TAMU	0.7	0.3	0.8	1.0	2.7
30	Maton II	Rye	Noble Foundation	0.4	0.4	1.2	0.7	2.7
31	NF96210	TRIT	Noble Foundation	0.8	0.6	0.9	0.4	2.7
32	TX09CS031*	Oat	TAMU	0.8	0.3	0.6	1.0	2.7
33	TX09CS1029*	Oat	TAMU	1.1	0.3	0.5	0.8	2.7
34	TAMcale 6331	TRIT	TAMU	0.8	0.5	0.7	0.6	2.6
35	Hays	SB	MSU	1.3	0.3	0.7	0.4	2.6
36	Heavy Grazer 76-30	Oat	East Texas Seed	0.8	0.6	0.9	0.3	2.6
37	Fannin	HRWW	Syngenta	0.9	0.5	0.6	0.5	2.6
38	TX10CAS302*	Oat	TAMU	1.1	0.2	0.5	0.7	2.5
39	TAM 401**	HRWW	TAMU	0.8	0.5	0.7	0.4	2.4
40	Hockett	SB	MSU	1.4	0.1	0.5	0.3	2.3
41	Craft	SB	UMN	1.2	0.2	0.5	0.3	2.2
42	MT103041-4*	SB	MSU	0.9	0.3	0.6	0.4	2.2
Mean				0.91	0.38	0.71	0.92	2.92
LSD (5%)				0.27	0.19	0.15	0.26	0.44
CV (%)				20.8	36.7^b	15.0	20.4	10.8

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

Ryegrass entries were all Tetraploids

^a2014 Rank is based on Total Forage Weight

^bTrials with a coefficient of variation (CV) \geq 25% contain excessive experimental error.

Readers should consider trials in a similar environment to confirm varietal yield.

2014 Small Grains Forage Trial - College Station (Irrigated) Clip 2 (2/3/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)			
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]
1	Heavy Grazer Ryegrass	Ryegrass	East Texas Seed	1646	364	12.8	22.1	28.0	87.6
2	Nelson	Ryegrass	TAMU	1604	366	12.8	22.8	27.9	88.2
3	TAMTBO	Ryegrass	TAMU	1510	330	12.4	21.9	27.8	87.6
4	Prine	Ryegrass	Ragan and Massey	1484	325	12.2	21.9	26.9	88.1
5	Heavy Grazer 76-30	Oat	East Texas Seed	1206	246	10.0	20.4	30.8	87.2
6	NF96210	TRIT	Noble Foundation	1142	238	11.1	20.8	33.5	85.9
7	TAMcale 6331	TRIT	TAMU	1065	228	11.0	21.4	33.5	85.7
8	TAM 305	HRWW	TAMU	1062	217	10.2	20.4	32.4	85.9
9	TAM 204** (TX06V7266)	HRWW	TAMU	991	217	10.6	21.9	34.3	85.8
10	TAM 401**	HRWW	TAMU	932	185	10.2	19.8	33.3	86.1
11	Fannin	HRWW	Syngenta	924	190	10.6	20.6	33.8	85.3
12	TAM 114 (TX07A001505)	HRWW	TAMU	923	195	10.5	21.1	30.5	86.7
13	Sturdy 2K	HRWW	TAMU	914	189	11.4	20.7	33.2	85.6
14	P-919**	WB	Paramount Seeds	844	184	11.1	21.8	34.7	88.2
15	Weathermaster 135**	HRWW	Unknown	820	176	11.6	21.4	32.6	86.0
16	TAMcale 5019	TRIT	TAMU	816	171	10.4	20.9	29.6	86.4
17	TX09A001194*	HRWW	TAMU	766	176	11.9	22.9	32.9	86.7
18	Maton II	Rye	Noble Foundation	726	161	10.4	22.1	31.6	87.8
19	Maton	Rye	Noble Foundation	697	156	10.8	22.3	32.4	87.7
20	Heavy Grazer 73-06	SRWW	East Texas Seed	658	143	11.0	21.8	33.6	85.7
21	Walken	Oat	UK	645	144	10.8	22.3	30.0	88.3
22	TX10CAS279*	Oat	TAMU	638	132	10.9	20.8	29.5	88.7
23	TX09CS031*	Oat	TAMU	630	135	11.3	21.5	33.4	87.2
24	MT103041-4*	SB	MSU	612	135	11.7	22.0	36.8	87.4
25	TX08V7313*	HRWW	TAMU	607	135	10.6	22.2	32.7	85.6
26	TAMO 606	Oat	TAMU	605	133	11.5	21.9	33.2	87.8
27	TAMO 411	Oat	TAMU	585	129	11.3	22.0	31.6	87.6
28	Nora	Oat	UA	570	127	12.0	22.2	31.8	87.9
29	Harrison	Oat	LSU	556	124	11.5	22.3	33.5	88.0
30	NF95418	Oat	Noble Foundation	551	121	11.4	22.0	32.5	87.7
31	TX08A001249*	HRWW	TAMU	548	125	11.5	22.8	33.1	85.5
32	TX09D1172*	HRWW	TAMU	541	117	10.2	21.6	31.7	85.9
33	TX09CS1029*	Oat	TAMU	503	113	11.0	22.4	30.2	88.6
34	Hays	SB	MSU	501	124	12.7	24.8	36.3	87.2
35	Fridge**	TRIT	Elliot Plant Breeding	479	104	10.2	21.8	29.0	87.5
36	RAM 99016	Oat	LSU	459	100	11.7	21.7	33.1	87.6
37	Elbon	Rye	Noble Foundation	437	96	10.6	22.0	32.2	87.5
38	Craft	SB	UMN	372	85	11.9	23.0	33.1	87.4
39	TX10CAS302*	Oat	TAMU	336	75	11.2	22.5	31.6	88.1
40	Bob	Oat	UA	328	77	11.7	23.4	31.4	87.7
41	Hockett	SB	MSU	276	69	12.3	24.9	35.2	86.8
42	TAMbar 501	WB	TAMU	267	61	11.4	22.9	36.8	86.1
Mean				757	85	11.3	22.0	32.2	87.1
LSD (5%)				389	---	1.1	2.6	2.8	1.1
CV (%)				36.7	---	4.74	5.74	4.27	0.63

[^]In Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

^a2014 Rank is based on Forage Yield

Ryegrass all tetraploids

2014 Small Grains Forage Trial - College Station (Irrigated) Clip 3 (3/7/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)				
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]	
1	Maton II	Rye	Noble Foundation	2350	405	9.2	17.2	43.8	83.9	
2	TAMTBO	Ryegrass	TAMU	2016	430	12.8	21.3	34.6	88.1	
3	P-919**	WB	Paramount Seeds	1965	313	9.7	16.0	42.0	87.6	
4	NF96210	TRIT	Noble Foundation	1890	275	10.8	14.6	49.5	81.9	
5	Prine	Ryegrass	Ragan and Massey	1869	383	12.1	20.5	33.0	88.2	
6	Heavy Grazer Ryegrass	Ryegrass	East Texas Seed	1824	350	12.1	19.2	33.4	87.9	
7	Heavy Grazer 76-30	Oat	East Texas Seed	1788	327	10.5	18.3	34.4	89.2	
8	TAM 204** (TX06V7266)	HRWW	TAMU	1681	322	10.9	19.2	42.9	84.5	
9	NF95418	Oat	Noble Foundation	1673	335	12.0	20.0	37.5	88.6	
10	Weathermaster 135**	HRWW	Unknown	1640	319	12.1	19.4	41.6	85.1	
11	Nelson	Ryegrass	TAMU	1614	345	12.9	21.4	34.3	88.5	
12	TX09A001194*	HRWW	TAMU	1575	286	12.4	18.2	45.3	85.4	
13	Sturdy 2K	HRWW	TAMU	1560	261	11.6	16.7	44.9	84.5	
14	TX08A001249*	HRWW	TAMU	1550	295	11.7	19.0	44.5	84.7	
15	TX09D1172*	HRWW	TAMU	1537	299	11.5	19.4	41.6	85.4	
16	Elbon	Rye	Noble Foundation	1537	292	10.3	19.0	41.7	86.3	
17	TAMcale 5019	TRIT	TAMU	1497	268	11.0	17.9	42.4	85.2	
18	TAMcale 6331	TRIT	TAMU	1483	264	11.8	17.8	45.2	83.1	
19	TAM 114 (TX07A001505)	HRWW	TAMU	1423	266	12.0	18.7	43.1	85.4	
20	Maton	Rye	Noble Foundation	1410	261	10.1	18.5	40.6	86.7	
21	TAM 401**	HRWW	TAMU	1390	228	10.7	16.4	46.2	81.9	
22	Hays	SB	MSU	1384	231	11.2	16.7	46.0	86.2	
23	TAMO 606	Oat	TAMU	1341	272	12.5	20.3	37.2	89.0	
24	Bob	Oat	UA	1310	274	12.2	20.9	35.3	89.3	
25	Fannin	HRWW	Syngenta	1287	231	11.8	17.9	45.9	83.3	
26	TX08V7313*	HRWW	TAMU	1287	259	12.4	20.1	43.6	85.4	
27	TAM 305	HRWW	TAMU	1284	253	12.1	19.7	41.0	86.3	
28	Harrison	Oat	LSU	1279	268	12.4	21.0	36.3	89.7	
29	TX09CS031*	Oat	TAMU	1266	278	12.2	22.0	35.8	89.4	
30	TAMO 411	Oat	TAMU	1192	251	12.0	21.0	36.1	89.5	
31	TX10CAS279*	Oat	TAMU	1190	259	12.0	21.8	35.9	89.7	
32	Walken	Oat	UK	1178	247	11.5	21.0	34.1	89.4	
33	Nora	Oat	UA	1173	232	12.0	19.8	34.4	89.4	
34	MT103041-4*	SB	MSU	1159	205	10.9	17.7	43.6	86.8	
35	Heavy Grazer 73-06	SRWW	East Texas Seed	1151	205	10.4	17.8	45.5	82.0	
36	RAM 99016	Oat	LSU	1104	227	12.3	20.6	35.5	89.6	
37	Fridge**	TRIT	Elliot Plant Breeding	1078	237	12.6	22.0	39.2	88.4	
38	TX09CS1029*	Oat	TAMU	1059	220	11.8	20.8	35.0	89.6	
39	TX10CAS302*	Oat	TAMU	1024	216	12.2	21.1	35.7	89.5	
40	Craft	SB	UMN	991	167	10.4	16.8	42.6	86.0	
41	TAMbar 501	WB	TAMU	947	185	10.8	19.5	40.1	89.6	
42	Hocket	SB	MSU	901	167	11.6	18.5	44.4	86.9	
				Mean	1425	57	11.6	19.2	40.1	86.8
				LSD (5%)	298	---	1.2	2.3	2.7	1.3
				CV (%)	15.0	---	5.2	5.9	3.4	0.8

^aIn Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

²2014 Rank is based on Forage Yield

Ryegrass all tetraploids

2014 Small Grains Forage Trial - College Station (Irrigated) Clip 4 (4/9/14) Forage Quality Data

2014 Rank ^a	Variety	Class ¹	Developer	Dry Matter Yield (lb/a)		Component of Forage (%)				
				Forage Yield	Crude Protein	Ash	Crude Protein	Neutral Detergent Fiber	IVDM [^]	
1	TAMbar 501	WB	TAMU	3490	373	8.2	10.7	50.8	77.7	
2	Maton	Rye	Noble Foundation	2934	321	7.7	11.0	58.5	72.5	
3	Elbon	Rye	Noble Foundation	2790	259	6.7	9.3	59.9	70.5	
4	TAMTBO	Ryegrass	TAMU	2653	343	10.2	12.9	37.2	83.4	
5	Fridge**	TRIT	Elliot Plant Breeding	2564	306	10.1	11.9	50.4	79.2	
6	TX09D1172*	HRWW	TAMU	2552	281	8.9	11.0	53.0	73.4	
7	Nelson	Ryegrass	TAMU	2514	311	10.1	12.4	36.2	84.2	
8	NF95418	Oat	Noble Foundation	2453	244	7.7	9.9	42.0	81.8	
9	TAMO 606	Oat	TAMU	2382	212	8.6	8.9	45.8	80.3	
10	TX08V7313*	HRWW	TAMU	2330	228	7.9	9.8	53.1	73.1	
11	Prine	Ryegrass	Ragan and Massey	2290	274	9.8	12.0	35.8	83.7	
12	TAM 114 (TX07A001505)	HRWW	TAMU	2270	216	8.8	9.5	52.3	74.7	
13	Harrison	Oat	LSU	2162	228	7.7	10.6	45.1	81.0	
14	Nora	Oat	UA	2150	212	9.0	9.9	40.8	82.7	
15	Bob	Oat	UA	2137	234	7.8	11.0	44.1	81.3	
16	Heavy Grazer Ryegrass	Ryegrass	East Texas Seed	2102	234	10.0	11.1	36.7	82.7	
17	Sturdy 2K	HRWW	TAMU	2097	208	8.8	9.9	50.5	72.6	
18	Heavy Grazer 73-06	SRWW	East Texas Seed	2057	302	10.4	14.7	44.3	78.6	
19	TAMO 411	Oat	TAMU	2056	199	8.7	9.7	47.0	79.2	
20	TX10CAS279*	Oat	TAMU	2025	212	8.3	10.5	40.6	83.7	
21	TX08A001249*	HRWW	TAMU	1925	201	8.4	10.4	54.6	71.8	
22	TX09CS031*	Oat	TAMU	1913	217	8.9	11.4	40.2	84.7	
23	RAM 99016	Oat	LSU	1851	190	7.8	10.3	38.5	84.3	
24	Weathermaster 135**	HRWW	Unknown	1829	197	9.5	10.7	46.5	76.4	
25	TX09A001194*	HRWW	TAMU	1784	200	10.0	11.2	51.7	74.7	
26	TAMcale 5019	TRIT	TAMU	1709	177	9.7	10.4	53.9	75.8	
27	TAM 305	HRWW	TAMU	1643	175	9.7	10.6	51.3	73.5	
28	Walken	Oat	UK	1630	187	9.7	11.5	38.4	86.7	
29	P-919**	WB	Paramount Seeds	1537	158	9.1	10.3	47.7	79.9	
30	TX09CS1029*	Oat	TAMU	1509	151	8.1	10.0	43.7	82.1	
31	TX10CAS302*	Oat	TAMU	1441	149	7.9	10.3	43.6	82.0	
32	Maton II	Rye	Noble Foundation	1430	166	8.4	11.6	52.6	75.6	
33	TAM 204** (TX06V7266)	HRWW	TAMU	1254	156	9.9	12.5	45.9	77.5	
34	TAMcale 6331	TRIT	TAMU	1147	131	10.1	11.4	50.2	77.7	
35	Fannin	HRWW	Syngenta	1073	127	9.8	11.8	51.1	72.9	
36	MT103041-4*	SB	MSU	879	96	9.1	10.9	45.7	81.0	
37	TAM 401**	HRWW	TAMU	865	105	10.2	12.1	50.5	74.4	
38	NF96210	TRIT	Noble Foundation	756	87	10.7	11.5	53.5	75.9	
39	Hays	SB	MSU	716	69	10.8	9.6	46.4	81.5	
40	Hockett	SB	MSU	698	85	10.8	12.2	45.0	84.9	
41	Craft	SB	UMN	684	74	9.8	10.9	48.1	80.0	
42	Heavy Grazer 76-30	Oat	East Texas Seed	681	53	7.1	7.7	42.3	81.4	
				Mean	1832	57	9.1	10.9	46.8	78.8
				LSD (5%)	523	---	1.2	2.1	3.7	3.2
				CV (%)	20.4	---	6.7	9.5	3.9	2.0

^aIn Vitro Digestion of Dry Matter

*Experimental Lines

**Awnless/Beardless

¹Hard Red Winter Wheat (HRWW)

Soft Red Winter Wheat (SRWW)

Triticale (TRIT)

Spring Barley (SB)

Winter Barley (WB)

*2014 Rank is based on Forage Yield

Ryegrass all tetraploids

Acknowledgements

The authors of this publication would like to express great appreciation to the generosity of the following companies who donated the seed for this research. Without partners such as these, research like this would not be possible.



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