



2016 Small Grain Forage Variety Trial

Texas A&M AgriLife Extension Service

Dwight Sexton, CEA-Ag, Gonzales Co.; Michael Haynes and Julie Zimmerman, CEAs-Ag, Caldwell Co.; Rachel Bauer, CEA-Ag, Bastrop Co.; Travis Franke and Jeff Hanselka, CEAs-Ag, Guadalupe Co.

Cooperator: The Luling Foundation Farm

Location: Luling, Texas

Situation:

The year round availability of high quality forage is a constant challenge for beef cattle producers. Winter pastures are grown extensively in South Central Texas to provide supplemental feed to stocker cattle, heifers, and mature cows. Most winter pastures consist of oats, wheat, or ryegrass. Major considerations in selecting small grain forage varieties include yield potential, season of optimal growth, and disease resistance. Leaf rust is a problem in most years, with some years much worse than others.

Objectives:

- 1) To demonstrate proper management practices.
- 2) To compare yields, disease resistance and other characteristics of several small grain forage varieties.

Method:

Cooperator: The Luling Foundation Farm

Tillage: The seed bed was disked twice, and a firm seed bed was established. The seed was drilled, and then a roller-packer followed to improve the seed-soil contact.

Planting Date: October 21, 2015

Seeding Rates:

| | |
|------------------|-------------|
| Oats | |
| Oats | 96 lbs/acre |
| Wheat, Triticale | 80 lbs/acre |
| Ryegrass | 30 lbs/acre |

Plot size: Plot sizes were 12 feet wide, and had a length of 50 feet, with three replications randomly located in the field. The plots were harvested on two occasions with a sub-sample size collected of 1 square foot. Following the harvest of each sub-sample, the plots were shredded in an effort to simulate grazing and reduce lodging.

Fertilizer: 400 lbs. of 21-0-0 were applied on 11/16/2015.

Harvest: The plots were harvested two times, on February 11, and April 12, 2016. These results are listed in Table 1.

Multiple Year Averages: An average of previous years' harvest is compiled in Table 2 to include multiple years' average dry matter yield.

Results:

Table 1.
2016 Luling Foundation Winter Forage Variety Trial

| Variety | Cutting | | Total | |
|-------------------------|-----------|-----------|-------|------------|
| | 2/11/2016 | 4/12/2016 | | |
| Small Grains | | | | |
| TAMO 411 Oat | 3049.2 | 6534.0 | 9583 | <i>a</i> |
| TAMO 406 Oats | 2613.6 | 5953.2 | 8567 | <i>ab</i> |
| Kodiak Ryegrass | 4356 | 4210.8 | 8567 | <i>ab</i> |
| Fannin Wheat | 3194.4 | 4936.8 | 8131 | <i>abc</i> |
| Sungrazer Plus Ryegrass | 4356 | 3775.2 | 8131 | <i>abc</i> |
| B3-15-G332 Ryegrass | 2613.6 | 5227.2 | 7841 | <i>a-d</i> |
| TAMCALE 5019 Triticale | 2758.8 | 4936.8 | 7696 | <i>a-e</i> |
| McKinley Ryegrass | 4210.8 | 3339.6 | 7550 | <i>a-f</i> |
| Big Boss Ryegrass | 2904 | 3775.2 | 6679 | <i>b-g</i> |
| L37-14-37X Ryegrass | 3703 | 2831.0 | 6534 | <i>b-h</i> |
| LA5-15-33 Ryegrass | 1960 | 4574.0 | 6534 | <i>b-h</i> |
| Jumbo Ryegrass | 2758.8 | 3484.8 | 6244 | <i>c-i</i> |
| Sungrazer Ryegrass | 3484.8 | 2613.6 | 6098 | <i>c-i</i> |
| Maximus Ryegrass | 3194.4 | 2613.6 | 5808 | <i>d-j</i> |
| Credence Ryegrass | 2032.8 | 3484.8 | 5518 | <i>e-k</i> |
| IS-LWD8 Ryegrass | 1525 | 3703.0 | 5227 | <i>g-m</i> |
| Attain Ryegrass | 1307 | 3267.0 | 4574 | <i>g-m</i> |
| Grasshancer Ryegrass | 1452 | 2323.2 | 3775 | <i>j-m</i> |
| B3-14-6545 Ryegrass | 1887.6 | 1306.8 | 3194 | <i>lm</i> |

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=2

B3-15-G332 Ryegrass
Credence Ryegrass
Cyclone Ryegrass

7841
 5518
 5663

Small Grains

| Variety | 2001 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2010 | 2014 | 2015 | 2016 |
|---------|------|------|------|------|------|------|------|------|------|------|------|
|---------|------|------|------|------|------|------|------|------|------|------|------|

Florida 4N Ryegrass
Grasshancer Ryegrass
Heavy Grazer Ryegrass
Hercules Ryegrass
Hurricane Ryegrass
IS-LWD8 Ryegrass
Kodiak Ryegrass
Kowinearly Ryegrass
LA5-15-33 Ryegrass
LWT 14 Ryegrass
L37-14-37X Ryegrass
Marshal Ryegrass
McKinley Ryegrass
OECD Bill Ryegrass
Passerl Plus Ryegrass
Rustmaster Ryegrass
Shiwa Ryegrass
Striker Ryegrass
Surry Nova Ryegrass
TAMTBO Ryegrass

| | | | | | | | | | | | |
|-----------------------|------|------|------|------|------|--|------|------|------|------|------|
| Florida 4N Ryegrass | | | | | | | | | 5082 | 6098 | |
| Grasshancer Ryegrass | | | | | | | | | | | 3775 |
| Heavy Grazer Ryegrass | | | | | | | | | 5808 | 7260 | |
| Hercules Ryegrass | | | | | | | 2468 | | | | |
| Hurricane Ryegrass | | | | 7260 | | | | | | | |
| IS-LWD8 Ryegrass | | | | | | | | | | | 5227 |
| Kodiak Ryegrass | | | | | | | | | | | 8567 |
| Kowinearly Ryegrass | | | | | | | | | | 7550 | |
| LA5-15-33 Ryegrass | | | | | | | | | | | 6534 |
| LWT 14 Ryegrass | | | | | | | | | | 7115 | |
| L37-14-37X Ryegrass | | | | | | | | | | | 6534 |
| Marshal Ryegrass | | | 4436 | | | | | | | | |
| McKinley Ryegrass | | | | | | | | | | | 7550 |
| OECD Bill Ryegrass | | | | | | | | | | 6679 | |
| Passerl Plus Ryegrass | | | | | 4356 | | 4501 | | | | |
| Rustmaster Ryegrass | 9562 | 4729 | 4495 | | | | | | | | |
| Shiwa Ryegrass | | | | | 5445 | | 2468 | | | | |
| Striker Ryegrass | | | | | | | | | | 7550 | |
| Surry Nova Ryegrass | | | | | | | | | 5518 | 5808 | |
| TAMTBO Ryegrass | | | | | | | | 6098 | | | |

Bob Oats
Big Mac Oats
BWI VNS Oats
Cayuse Oats
Charisma Forage Oat
Coronado Oats
Dusky Oats

| | | | | | | | | | | | |
|---------------------|-------|------|------|------|------|--|------|--|--|--|--|
| Bob Oats | 12252 | 7861 | 5187 | | 8857 | | | | | | |
| Big Mac Oats | 9816 | | 6701 | | | | | | | | |
| BWI VNS Oats | | | | | | | 5808 | | | | |
| Cayuse Oats | | | | | | | 7550 | | | | |
| Charisma Forage Oat | | | 4138 | 7986 | | | | | | | |
| Coronado Oats | 11660 | | | | | | | | | | |
| Dusky Oats | | | | 9148 | | | | | | | |

Conclusions:

The plot was planted into dry conditions in the Luling area. The following growing season included ample moisture, with average heat. Spring rains continued to allow for moist conditions for the plots.

Producers should note that the totals accumulated from this study represent results under the conditions that were present during this trial, and may not see the same results under their own growing conditions. Results over more years are needed to give producers a true indication of trends that can be expected with different varieties.

We wish to thank the following groups for assisting with this trial: The Luling Foundation, Mike Kuck, manager, and his staff, for assisting with this trial; W. James Grichar, Texas A&M AgriLife Research and Extension-Beeville for assistance with the statistical analysis; and the following companies for donating seed for this trial: Barenbrug USA, DLF International Seed, and Pogue Agri-Partners Inc, and Smith Seed.

Disclaimer Clause:

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.