

**2004 – 2005**

**Forage and Grain Yields  
from**

**Rye,  
Oat,  
Barley,  
Wheat  
and  
Triticale**  
Varieties and Strains

Jerry L. Baker

The Samuel Roberts Noble Foundation, Inc.  
2510 Sam Noble Parkway  
Ardmore, Oklahoma 73401

NF-FO-05-03

Small-grain forage performance, 2004-05; Red River Demonstration and Research Farm, Burneyville, Okla.<sup>1</sup>

Variety or Strain <sup>2</sup>	Clipping dates				2004- 2005 Total	Maton (%)	Forage Produced by 1/21 (%)
	1/21	3/10	4/15	5/20			
	Dry pounds per acre						
XRO403 rye	1498	1284	4732	578	8092	122	19
NF65 rye	1213	807	4865	219	7104	107	17
Bates RS4 rye	1395	731	4406	288	6820	103	20
Winterking rye	982	1310	4320	182	6794	102	14
Oklon rye	1249	869	4344	309	6771	102	18
Maton rye	814	1209	4350	263	6636	100	12
NF96210 triticale	1192	705	4404	295	6596	99	18
ThunderCale triticale	486	1700	3900	505	6591	99	7
2174 wheat	990	2243	3176	162	6571	99	15
NF95307A rye	1277	629	4419	234	6559	99	19
Bates rye	1267	844	4166	276	6553	99	19
NF95215B triticale	1277	637	4281	347	6542	99	20
NF95314A wheat	714	534	4798	450	6496	98	11
ThunderCale triticale	642	1716	3741	342	6441	97	10
Wintergrazer 70 rye	689	1669	3765	236	6359	96	11
NF95418 oat	968	2738	1891	756	6353	96	15
Wintermore rye	1112	1259	3815	166	6352	96	18
Elbon rye	1032	1405	3873	30	6340	96	16
NF95319B rye	1061	746	4194	272	6273	95	17
Santa Fe wheat	887	1162	3978	236	6263	94	14
NF95318 rye	1274	772	3963	213	6222	94	20
NF95401A oat	1084	2583	1542	992	6201	93	17
Endurance wheat	418	2365	3259	158	6200	93	7
NF96323 rye	933	829	4206	228	6196	93	15
NF94120 wheat	1096	665	4195	233	6189	93	18
NF95322 rye	1205	606	4158	217	6186	93	19
NF96213 triticale	1376	807	3665	335	6183	93	22
FL96RP16-34 rye	1152	659	4131	211	6153	93	19
RSI 1029E triticale	549	852	4451	296	6148	93	11
NF95307B rye	1259	485	4173	197	6114	92	21
Deliver wheat	458	1809	3555	259	6081	92	8
NF95310B rye	1279	614	3857	280	6030	91	21
Sturdy 2K wheat	1003	1373	3518	131	6025	91	17
AGS 104 rye	1211	726	3852	218	6007	91	20
NF95313A rye	1108	646	3983	268	6005	90	18
NF95401 oat	941	2530	1514	1019	6004	90	16
XRO402 rye	844	1250	3785	98	5977	90	14
Tambar 501 barley	334	2572	2864	169	5939	89	6
NF95301D rye	1064	561	4096	180	5901	89	18
NF96309 rye	1169	777	3656	267	5869	88	20
NF 27 oat	1072	2443	1450	900	5865	88	18
RSI T-346 triticale	296	2381	2980	168	5825	88	5
NF95414A oat	935	2493	1580	805	5813	88	16
Dallas oat	602	2344	1990	840	5776	87	10
AGS 2000 wheat (soft)	1125	383	3954	309	5771	87	19
AGR TS101 triticale	596	1065	3245	838	5744	87	10
Boss rye	1148	573	3798	178	5697	86	20
NF 27A oat	1036	2251	1470	937	5694	86	18
Overley wheat	1035	475	3949	199	5658	85	18
XRO 401 rye	836	1232	3443	143	5654	85	15
TAMcale 5019 triticale	987	734	3609	296	5626	85	18
NF96107A wheat	975	461	4008	177	5621	85	17
Lockett wheat	726	1041	3557	271	5595	84	13
Natchez wheat	809	907	3562	263	5541	83	15

Variety or Strain <sup>2</sup>	Clipping dates				2004- 2005	Maton (%)	Forage Produced by 1/21 (%)
	1/21	3/10	4/15	5/20	Total		
	Dry pounds per acre						
NF96417 oat	520	2102	2141	774	5537	83	9
NF96412 oat	784	2235	1507	982	5508	83	14
OK101 wheat	507	1756	3122	113	5498	83	9
NF96111 wheat	698	520	3951	328	5497	83	13
ThunderCale K triticale	263	2316	2782	124	5485	83	5
NF95203 triticale	844	1416	2843	374	5477	83	15
TAMcale 6331 triticale	152	1283	3703	336	5474	82	3
Custer wheat	684	1258	3289	231	5463	82	13
Fannin wheat	995	349	3945	147	5437	82	18
Jagger wheat	754	720	3719	191	5386	81	14
Coronado wheat	499	990	3672	195	5356	81	9
Tam 202 wheat	489	507	4069	244	5309	80	9
Kingrazer wheat	818	1010	3228	246	5301	80	15
Post 90 barley	649	2204	2110	312	5275	79	12
Ranger Brand 1301277 wheat	413	1641	2739	386	5180	78	8
NF96210A triticale	768	1326	2437	640	5171	78	15
Mason wheat	1369	276	3367	93	5105	77	27
JEI 110 wheat	515	1640	2791	128	5074	76	10
Cutter wheat	570	426	3764	302	5062	76	11
Exp. 99132 wheat	512	416	3762	247	4936	74	10
Jagalene wheat	815	725	3184	146	4871	73	17
TX96D093 oat	677	2160	1337	613	4787	72	14
Horizon 314 oat	591	2029	1322	837	4780	72	12
Horizon 321 oat	650	2118	928	898	4594	69	14
Coker 9663 wheat	442	639	3037	302	4421	67	10
LA976GBS-22-B-S2 oat	658	1971	946	786	4361	66	15
Harrison oat	343	1879	507	970	3698	56	9
Bob oat	521	1574	987	583	3665	55	14
Trical 2700 triticale	657	1462	966	508	3593	54	18
LA9810SBS-58 oat	441	1356	300	956	3052	46	14
Doyce barley	632	823	947	171	2574	39	25
HGR HV102 barley	34	0	0	0	34	1	100
HGR HV101 barley	14	0	0	0	14	0	100
Average	827	1237	3148	363	5575	84	12
L.S.D. (.05)	379	300	783	206	1142		
C.V. (%)	28.4	15.0	15.4	35.2	12.7		

### Some Influencing Factors:

<sup>1</sup>Planting date: Oct. 8, 2004

<sup>2</sup>NF numbers are Noble Foundation experimental strains

Seeding rate: 2,000,000 live seed per acre, which approximates 90-120 pounds per acre, depending on variety/strain and crop

Seeding method: Drilled in 7-inch rows at a 1-inch planting depth

Replications: Three.

Soil type: Minco fine sandy loam

Previous crop: Fallow

Management: Disked and swept

Weed control: None

Fertilization: Preplant – none; topdress – 75 pounds of N per acre on Nov. 9, 2004, and 75 pounds of N per acre on Feb. 16, 2005.

Weather factors, 2004-2005; Burneyville

Month	Rainfall (inches)	
	2004-2005 Season	11-year Average
September	1.02	3.23
October	4.80	3.63
November	3.80	2.51
December	0.65	2.35
January	1.60	1.66
February	1.26	2.29
March	0.40	2.52
April	0.46	2.97
May	2.54	3.93
<b>Total</b>	<b>16.53</b>	<b>25.09</b>

Minimum temperatures (20° F or lower)

Date	Temperature (° F)	Date	Temperature (° F)
December 14	20	January 6	17
December 15	15	January 14	19
December 22	18	January 16	19
December 23	6	January 17	15
December 24	12	January 23	15
December 25	14		

Information in this report is not conclusive, but can be of great value when compared with similar information from other sources. Weather data was taken from the Oklahoma Mesonet Weather Station located on the Red River Demonstration and Research Farm at Burneyville.

All available information pertaining to forage production should be used in making conclusions and decisions. This publication is intended to furnish supplemental information to aid decision-making and formulate ideas.

I would like to acknowledge the following research support staff for their valuable assistance in the collection and analysis of data and the preparation of this report: Julie Barrick, Bret Flatt, Roger Hartwell, Steve Howe, Shawn Norton and Frank Motal.

Grain yields from small-grain varieties and strains, 2004-2005; Burneyville, Okla.

Variety/Strain	Yield (Bu./Ac.)	Test Weight Lb./Bu.
<b>Rye</b>		
XRO 403	60.0	55.9
Maton	56.7	56.3
FL96RP16-34	55.9	54.6
NF96309	55.6	55.6
Bates	55.0	55.6
Wintermore	54.5	55.9
Elbon	53.0	56.1
Bates RS4	52.5	56.1
XRO 401	52.5	56.6
NF95322	51.7	55.7
Oklon	51.6	55.7
NF95307B	51.4	55.6
NF95307A	50.2	56.8
NF65	50.0	56.2
NF95318	49.8	56.0
NF95319B	49.7	56.2
NF96323	49.2	55.8
XRO 402	49.0	55.8
Winterking	48.9	56.2
NF95310B	48.7	55.7
NF95301D	47.7	55.7
Wintergrazer 70	47.3	55.7
AGS 104	46.4	55.4
NF95313A	45.4	55.0
Boss	43.6	56.5
<b>Average</b>	<b>51.1</b>	<b>55.9</b>
<b>Wheat</b>		
Ranger Brand 1301277 (soft)	73.5	58.4
Endurance	72.2	61.2
AGS 2000 (soft)	71.7	59.8
Natchez (soft)	67.7	59.4
Coker 9663 (soft)	64.7	58.1
Tam 202	62.7	58.4
Kingrazer (soft)	61.3	60.6
Deliver	59.9	60.1
NF95134A	58.8	59.0
2174	58.3	60.4
Jagger	57.9	59.4
Santa Fe	57.7	59.8
JEI 110	57.2	58.7
NF96111	56.3	58.0
Coronado	56.0	59.2
Exp. 99132	54.3	58.0
Lockett	54.2	58.1
Sturdy 2K	54.1	60.5

Overley	53.5	59.7
Cutter	50.9	60.4
Jagalene	50.1	61.8
Custer	49.2	59.2
NF94120	49.0	59.6
NF96107A	48.5	59.6
Fannin	48.1	59.7
OK101	45.0	58.5
Mason (soft)	39.8	58.8
<b>Average</b>	<b>56.8</b>	<b>59.4</b>
<b>Triticale</b>		
RSI 1029E	65.6	56.2
NF95203	62.6	49.0
ThunderCale K	59.7	53.4
ThunderCale V	55.2	51.2
ThunderCale	55.1	52.1
NF96213	54.2	52.7
NF96210A	51.5	48.9
TAMcale 5019	51.0	53.9
NF96210	49.9	51.6
TAMcale 6331	44.1	51.2
RSI T-346	43.9	48.9
NF95215B	41.8	49.7
Trical 2700	34.1	49.5
AGR TS101	33.8	47.5
<b>Average</b>	<b>50.2</b>	<b>51.1</b>
<b>Oat</b>		
Dallas	87.4	37.3
Horizon 314	78.6	34.1
NF96417	77.3	37.2
NF95401	76.5	36.0
NF96412	76.0	36.0
NF95401A	75.4	35.5
TX96D093	71.7	38.0
NF95418	70.6	39.2
Harrison	67.2	38.6
NF27	64.1	36.5
NF27A	63.4	35.8
Horizon 321	62.1	38.7
NF95414A	60.8	37.6
LA976GBS-22-B-S2	60.1	37.6
LA9810SBS-58	51.2	38.2
Bob	45.2	38.7
<b>Average</b>	<b>68.0</b>	<b>37.2</b>
<b>Barley</b>		
Tambar501	87.7	42.3
Post 90	62.9	46.8
Doyce	25.8	56.3
<b>Average</b>	<b>58.8</b>	<b>48.5</b>

Grain yields from small-grain varieties and strains, 2004-2005; Ardmore, Okla.

Variety/Strain	Yield (Bu./Ac.)	Test Weight Lb./Bu.
<b>Rye</b>		
NF95318	37.7	57.3
NF95319B	37.3	58.0
NF95307A	36.8	57.9
Boss	36.5	59.0
NF95322	34.8	58.0
NF65	34.1	57.8
NF96323	33.5	57.2
AGS 104	33.0	57.1
NF96309	32.9	56.8
Oklon	32.9	57.5
Elbon	32.5	57.6
Bates RS4	32.5	57.6
NF95310B	32.3	57.1
NF95307B	32.2	57.3
Bates	32.1	57.6
Wintermore	32.0	57.3
NF95313A	31.7	56.9
Winterking	31.6	58.1
NF95301D	31.6	56.9
XRO 403	29.5	56.6
Maton	28.4	57.9
FL96RP16-34	28.3	55.6
Wintergrazer 70	28.2	57.8
XRO 401	26.0	57.4
XRO 402	24.8	57.2
<b>Average</b>	<b>32.1</b>	<b>57.4</b>
<b>Wheat</b>		
Kingrazer (soft)	73.0	60.5
Endurance	72.4	61.3
Coker 9663 (soft)	69.6	58.7
AGS 2000 (soft)	69.3	59.4
Overley	65.5	60.7
Ranger Brand 1301277 (soft)	62.8	59.3
Natchez (soft)	62.6	60.1
Exp. 99132	61.6	59.6
NF96107A	60.4	61.0
Mason (soft)	59.6	59.5
Fannin	59.4	60.9
JEI 110	58.8	59.9
Jagger	57.4	61.2
Sturdy 2K	55.9	60.6
Santa Fe	55.6	60.6
NF94120	53.8	60.3
Deliver	53.6	60.5
Cutter	51.5	61.2
NF95134A	51.2	59.8

Tam 202	51.1	61.0
Custer	51.0	60.8
Jagalene	50.8	62.1
NF96111	50.5	59.3
2174	49.1	61.5
Coronado	48.3	60.4
OK 101	47.9	62.0
Lockett	39.8	60.3
<b>Average</b>	<b>57.1</b>	<b>60.5</b>
<b>Triticale</b>		
Trical 2700	49.6	53.8
RSI 1029E	47.4	56.3
NF96213	47.3	55.2
NF95203	42.2	52.2
ThunderCale V	41.9	52.7
NF96210	39.9	54.6
NF96210A	38.9	51.5
ThunderCale K	38.5	54.3
TAMcale 5019	38.5	55.7
TAMcale 6331	34.2	54.2
AGR TS101	32.2	50.6
ThunderCale	30.6	54.0
RSI T-346	24.3	51.7
NF95215B	21.6	51.0
<b>Average</b>	<b>37.7</b>	<b>53.4</b>
<b>Oat</b>		
Horizon 314	108.9	35.4
NF96412	103.8	37.2
Horizon 321	96.8	40.3
Dallas	95.9	37.8
NF96417	94.0	37.9
NF27A	93.4	37.4
Harrison	93.0	38.3
NF95401A	92.9	38.4
LA9810SBS-58	92.1	40.0
LA976GBS-22-B-S2	90.3	37.7
NF95418	87.2	40.4
TX96D093	86.0	39.2
NF95414A	85.9	39.2
NF95401	81.4	38.9
NF27	78.9	37.5
Bob	70.2	40.3
<b>Average</b>	<b>90.7</b>	<b>38.5</b>
<b>Barley</b>		
Tambar 501	109.3	46.8
Post 90	95.7	42.4
Doyce	80.5	55.7
<b>Average</b>	<b>95.2</b>	<b>48.3</b>

### Some Influencing Factors

<sup>1</sup>Planting date: Oct. 19, 2004

Seeding rate: 2,000,000 live seed per acre, which approximates 90-120 pounds per acre, depending on variety and crop.

Seeding method: Drilled in 7-inch rows at a 1-inch planting depth

Replications: Three

Soil type: Heiden clay

Previous crop: Fallow

Management: Disked and roller-harrowed

Weed control: None

Fertilization: Preplant – 80 pounds of N and 60 pounds of K<sub>2</sub>O per acre on Sept. 2, 2004; topdress – 75 pounds of N per acre on Feb. 16, 2005.

<sup>2</sup>NF numbers are Noble Foundation experimental strains. XRO numbers are experimental blends developed by Seed Resource. TX, LA and FL numbers are Texas A&M University, Louisiana State University and Florida University experimental strains, respectively. RSI numbers are experimental triticale strains developed by Resource Seeds, Inc. Seed of these experimental materials are not commercially available.

#### Weather factors, 2004-2005; Ardmore

Month	Rainfall (inches)	
	2004–2005 Season	103-year Average
September	0.31	3.63
October	6.68	3.70
November	4.31	2.50
December	0.92	2.25
January	4.78	1.82
February	2.19	2.10
March	1.12	2.86
April	0.27	3.98
May	3.64	5.26
<b>Total</b>	<b>24.22</b>	<b>28.10</b>

#### Minimum temperatures (20°F or lower)

Date	Temperature (°F)	Date	Temperature (°F)
December 22	19	January 5	20
December 23	12	January 6	15
December 24	13	January 17	18
December 25	16	January 23	17