

Forage

Beef Cattle

Soil

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OATS, RYE AND WHEAT FORAGE CLIPPING RESULTS FROM 1976-77

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SUMMARY

Forage production of winter annuals or small grains during 1976-77 was below normal. Temperatures that were several degrees below normal resulted in reduced growth. Growing conditions were quite good in September and October. Little growth occurred from mid-November through January because of cold temperatures. Rye produced the most forage in the fall and winter, however, rye produced little or no forage after mid-March. Wheat produced a somewhat lesser amount of forage (than rye) in the fall and winter and produced little or no forage after the first of April. Oats produced adequate forage in the fall, however, produced little forage during the winter. Spring production of oat forage in March and April accounted for most of the total yield.

OBJECTIVE

Small grain forage variety tests are conducted annually to determine the forage yielding potential of released and experimental small grain varieties. The main purpose is to determine which varieties are best suitable for high forage production in East Texas. We also hope to determine the forage yields of new experimental varieties so as to determine their potential and whether they should be recommended for this area.

PROCEDURE

Each small grain forage crop was tested separately and comparisons between mean yields are only indications of differences since treatments varied between tests. Fertilizer treatments were identical on all tests with 500 lbs of 12-12-12 ($\text{N-P}_2\text{O}_5\text{-K}_2\text{O}$) being applied on 12 August prior to tillage. A complete tillage operation was carried out prior to planting. Planting dates were 15 September for oats and wheat and 17 September for rye. Seeding rates were 120 lbs of seed/acre for all small grains. Seed were planted in six rows 14 feet in length spaced 8 inches apart. These plots were trimmed to 10 ft in length before harvest. The

interior 4 rows were harvested using a flail type harvester. Harvest dates vary with specie and are noted for each table. Additional nitrogen at a rate of 75 lbs N were applied as ammonium nitrate on 10 November of 1976 and 9 February of 1977 for a total N application of 210 lbs/acre.

RESULTS

Good forage production from rye (Table 1) is apparent for the first clipping. Little real differences were noted between varieties. Even though an abnormally cold winter occurred some forage was produced in December and January which resulted in sufficient forage for a second clipping on 17 February. More than one half of the total forage was harvested on the third (and last) clipping on 17 March. Almost no regrowth occurred after the third clipping. There were little real differences between these rye varieties for forage yield.

Fairly uniform forage production is evident on the wheat variety test (Table 2). Sufficient regrowth occurred during the winter for a second clipping on 25 February. Coker 75-27 was the only variety in which significant winter injury occurred. No regrowth occurred after the 29 March clipping.

Yields from the oat forage test (Table 3) indicate that fall forage production was quite high. The cold winter not only delayed regrowth until March, but also caused significant winter killing and freeze damage (Table 3). Most varieties produced good regrowth with warmer weather which resulted in high yields in March and April. About one half of the total forage yield was obtained in the final clipping taken on 4 April.

Table 1. Rye forage variety test, Overton, Texas. 1977

Variety	Pounds of Dry Matter Per Acre			
	11/5	2/17	3/17	Total
Taylor-Evans Exp. 7114	1678	559	3775	6012
Noble Foundation 270	1275	508	4138	5920
Acco WR-811	1613	653	3518	5784
Gurleys GI-75	1998	765	2930	5693
Gurleys GI-76	1496	603	3511	5617
Noble Foundation Maton	1056	413	4061	5514
Taylor-Evans Exp. 7401	1208	228	4037	5473
Taylor-Evans Exp. 7105	1431	478	3568	5476
Noble Foundation Bone1	1260	324	3835	5419
Gurleys Abruzzi	1283	646	3415	5344
Noble Foundation 74	1532	277	3498	5307
Gurleys Grazer 2000	1412	732	3022	5167
Noble Foundation 72	1533	376	3196	5105
Taylor-Evans Gro-Green	1500	274	3234	5008
Noble Foundation 324	1510	280	3212	5002
Athens Abruzzi	824	404	2942	4171
Wessor	1256	421	2258	3935
Mean	1404	467	3421	5291
LSD (.05)	570	213	705	1140
CV (%)	24.4	27.4	12.4	12.9

The odds are 19 to 1 that two varieties actually yielded differently if their yields differ as much as the LSD. Smaller differences may be due to chance.

Table 2. Wheat forage variety test, Overton, Texas. 1977

Variety	Pounds of Dry Matter Per Acre				% Winter Injury 1/20
	11/10	2/25	3/29	Total	
McNair 3001	1455	1568	2088	5112	5
Coker 68-15	942	1211	2855	5008	0
Coker 76-22	1180	1918	1540	4639	0
Coker 75-6	635	951	2753	4339	0
Coker 747	479	414	3440	4332	0
La 754	891	1443	1817	4152	0
Sturdy	509	366	2979	3854	0
Coker 75-24	789	1936	1092	3816	0
Wakeland	851	1189	1733	3773	5
Oasis	585	346	2818	3749	0
Arthur 71	352	248	2858	3458	0
Coker 75-27	841	472	1268	2581	80
Mean	792	1005	2270	4068	
LSD (.05)	734	720	771	1231	
CV (%)	54.6	42.3	20.0	17.8	

The odds are 19 to 1 that two varieties actually yielded differently if their yields differ as much as the LSD. Smaller differences may be due to chance.

Table 3. Oat forage variety test, Overton, Texas. 1977

Variety	Pounds of Dry Matter Per Acre				
	11/4	3/15	4/22	Total	% Winter-kill on 1/20
Coker 234	2358	1953	2685	6996	25
Coker 74-22	2213	1959	2757	6929	25
Coronado	2607	1505	2782	6894	30
Coker 76-19	1384	2553	2917	6854	30
Noble Foundation 199	2007	1288	2964	6259	2
Noble Foundation 113	1437	1826	2995	6259	5
Tx. Exp. 72C 2045	1968	1666	2408	6042	40
Tx. Exp. 72C 1026	1564	1223	3200	5987	75
Tam 0-312	877	1086	3889	5852	80
Noble Foundation 105	1354	1644	2663	5661	3
Noble Foundation 188	1659	1360	2592	5611	2
Tx. Exp. 72C 1030	1671	1017	2678	5366	80
Cortez	1589	1617	2158	5364	40
Coker 76-14	1160	1979	2086	5225	25
Nora	1614	1229	2368	5211	5
Noble Foundation 165	889	1069	3202	5160	2
Coker 76-16	953	1738	2454	5145	5
Tx. Exp. 72C 1233	1301	1605	2212	5118	40
Tx. Exp. 72C 1232	932	1417	2607	4961	40
Checota	729	2069	2119	4917	5
Tx. Exp. 6702031	1514	1243	2000	4757	40
Tx. Exp. 72C 3030	1039	1148	2546	4733	50
Tx. Exp. 72C 1952	1140	1291	2192	4623	20
Ora	988	1126	2484	4598	2
Tx. Exp. 72C 1411	699	1536	2345	4580	60
Coker 76-18	1445	1140	1834	4419	50
Tx. Exp. 72C 3034	760	1046	2591	4397	50
Tx. Exp. 72C 3031	978	1012	2314	4304	80
Ark 99-190	857	1315	1972	4144	10
New Nortex	1478	957	1633	4068	80
Tx. Exp. 70Ab 1916	766	1528	1524	3818	10
Mean	1353	1456	2489	5298	
LSD (.05)	1043	682	652	1554	
CV (%)	47.0	28.6	16.0	17.9	

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