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ANNUAL RYEGRASS FORAGE YIELDS AT OVERTON FOR 2000-2001 AND THREE-YEAR MEANS

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Background. Annual ryegrass is an important cool season annual in east and south Texas. Ryegrass has advantages over small grains in that it is later maturing and will produce more forage in warm weather than wheat or rye. It also will normally produce a greater total season forage yield than oats, wheat, or rye. Ryegrass can be overseeded onto warm season pastures greatly reducing the cost of preparing a seedbed. A disadvantage of ryegrass is that autumn and early winter forage production is less than small grains. If overseeded, forage may not be available until mid-February. Ryegrass forage is high in nutritive value and grazing animals can normally graze ryegrass until about June 1. Some varieties produce more forage in the fall while others produce higher yields in the winter or spring.

Research Findings. An annual ryegrass forage variety test is conducted annually at the TAMU Agricultural Research and Extension Center at Overton. In this report, yield data from commercial varieties only will be reported. Fertilizer application rates and dates are noted in Table 1. The normal planting dates were mid-September; however, in 2000 we planted on 11 October. Seeds were planted in seven rows that were spaced 6-inches apart. Seed were drilled into a prepared seedbed at a 1/4 inch depth at 30 lb/ac. Plot size was 4 x 12 ft with four replications. The test site was on a sandy soil. Environmental conditions were abnormal in 2000-2001. A very wet November and cold mean temperatures from November until February, along with cloudy weather and the late planting date resulted in little forage production until March. A dry April caused all ryegrass varieties to produce seed heads and mature about 3-weeks earlier than normal. The entire plot was harvested with a Hege plot harvester at a cutting height of 2 inches on 26 February, 16 March, 12 April, and 21 May. In the first harvest, King and Jumbo produced the better forage yields (Table 1). In the second harvest, TAM 90 produced the highest yield. Yields on the 3rd and 4th harvests were very high indicating that with adequate precipitation and warm growing conditions high spring forage yields resulted. For the total season yields, Natchez, Jumbo and King produced the higher yields followed by Abundant, Fantastic, and Graz-N-Gro. Three-year means are presented for those varieties which have been in the test for that period of time. Natchez and Surrey II had higher yields over the three years; however, TAM 90, Stampede, Abundant, and Jumbo were not significantly lower yielding. No freeze injury was noted. If winter killing had occurred, Marshall and TAM 90 may have had some advantage, as judged by previous year's freeze damage ratings. No crown rust

was observed in Texas in 2001.

Application. Data presented from these trials should be useful in selecting ryegrass varieties for your ranch. Depending on variety availability, compare forage yields to determine which variety you want to plant. Ryegrass will produce good forage yields in early spring and late spring but during cold weather little forage will be produced.

Table 1. Ryegrass forage test of commercially available varieties at Overton, Texas for 2000-2001 and 3- year mean yields

Variety	Harvest 1 Feb 26	Harvest 2 Mar 16	Harvest 3 Apr 12	Harvest 4 May 21	Total Season Yield	3-Year Mean
	-----pounds of dry matter per acre-----					
Prine	820	1132	1836	2703	6491	-+
Natchez	984	1241	1718	2460	6403	7775
Jumbo	1128	760	1580	2906	6374	7317
King	1430	973	1718	2215	6336	-+
Abundant	744	782	1729	2688	5944	7457
Fantastic	898	1062	1465	2434	5859	-+
Graz-N-Gro	769	1187	1594	2270	5820	-+
Marshall	467	1078	1877	2336	5758	7265
Brigadier	850	906	1651	2336	5743	-+
Ed	868	960	1402	2352	5581	-+
Big Daddy	846	800	1694	2234	5574	7285
Jackson	593	993	1677	2309	5572	7113
Surrey II	741	850	1633	2259	5482	7615
Passerel Plus	760	730	1423	2567	5479	7104
Florlina	845	858	1498	2140	5340	-+
WD-40	968	915	1622	1809	5314	-+
TAM 90	494	1486	1685	1587	5252	7476
Gulf	861	1162	1497	1706	5225	6987
Ribeye	824	842	1638	1859	5163	7240
Rio	610	939	1559	2033	5142	6839
Stampede	527	769	1338	2240	4874	7489
Grand Mean	741	1053	1704	2185	5682	
LSD	306	297	359	588	1011	
CV	35	24	18	23	15	

Planted October 11, 2000. Fertilization: Preplant 400 lb 10-26-26/ac. Topdressed with 40 lb N/ac on November 22, 2000, 40 lb N/ac on January 29, 2001, 40 lb N/ac on March 5, 2001, and 40 lb N/ac on April 4, 2001.