2005-2006 Runnels County Dryland Wheat Variety Test
Cooperator: Lowell Freeman

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Summary:

Twelve wheat varieties were planted on the Lowell Freeman farm October 20, 2005 in the Hatchel community of Runnels County. These varieties were raised using normal dryland wheat production practices. Dumas, 2158 and Sturdy 2K topped the test with grain yields of 40.0 bushels/acre, 38.5 bushels/acre and 38.4 bushels/acre, respectively. Eight small grain varieties including wheat, oats, triticale, and rye where planted in the same field on September 20, 2005 to measure forage production. Coronado wheat, Horizon 314 oats, and Longhorn wheat topped the forage test with 1797, 1737 and 1713 pounds of forage per acre, respectively. Also planted on the Freeman farm was a seed treatment plot using WinMaster wheat and seed treatments of Cruiser, Raxil and Gaucho. When reviewing the test results, producers should keep in mind that this is only one year's data. Year to year consistency should be a primary consideration in selecting varieties of wheat to be planted.

Problem:

Over 85,617 acres of wheat are planted annually in Runnels County. The average dryland wheat yield for the county is 21.49 bushels per acre (1989-2003). Several new varieties of wheat become available each year and when combined with the varieties already available makes planting seed selection increasingly difficult. Producers need local data to help in selecting consistently high yielding adapted varieties.

Objectives:

Variety tests provide producers with the opportunity of comparing new varieties of wheat with varieties of wheat that have been successfully grown under varying weather conditions in Runnels County. Utilization of new varieties, which are equal to or exceed currently available varieties, should increase production and income of county producers.

Materials and Methods:

Cooperating County Producers:	Lowell Freeman
Location:	Runnels County
Planting Date:	September 20, 2005 - Forage
Planting Date:	October 20, 2005 - Grain
Seeding Rate:	75 lbs.
Drill Spacing:	7 ½ inch
Soil Moisture Condition at Planting:	Good
Fertilizer Applied:	None
Herbicide Applied:	None

Each variety of wheat was harvested by combine separately on May 23, 2006. The grain yields from these samples were then analyzed and the statistical separation of these are reported in the table on the next page. All varieties that have the same letter after it are statistically the same (that means yield difference reported are not stable enough to choose one variety over the other from this data). All yields that have the same letter after it should be considered the same regardless of the yield difference reported.

Results and Discussion:

The 2005-2006 wheat crop was one that should go down in the record books. Timing was everything in getting a crop established, if you didn't take advantage of the August and September rains you may have missed the opportunity of getting a crop established. Rainfall for many areas did not occur again until late January and wheat emerged the first part of February. The yields from the wheat variety test in Runnels County were good considering the year.

Dumas, 2158 and Sturdy 2K topped the test with grain yields of 40.0 bushels/acre, 38.5 bushels/acre and 38.4 bushels/acre, respectively. Yield data and gross returns are summarized in Table 1.

Table 2 summarizes the wheat seed treatment test also conducted on the Freeman farm for 2005-2006.

Table 3 summarizes the forage test results for the Freeman farm giving a $17.03 difference between the top producing variety and the lowest producing variety. Most of the forage production from the test was produced in the spring of 2006 as it was too dry in the fall of 2005 for much tiller development and forage growth. This would make a significant difference in production of the wheat varieties that normally tiller and produce a large quantity of forage in the fall.

Table 1. Agronomic Data from Lowell Freeman farm (Runnels County, 2006)

Variety	Yield Per Acre (pounds)	Yield Per Acre (bushels)	Gross Return Per Acre @$5.18 Per Bushel
Dumas	2398	40.0	207.06
2158	2308	38.5	199.23
Sturdy 2K	2302	38.4	198.78
TAM 111	2266	37.8	195.67
WinMaster	2238	37.3	193.19
Cutter	2164	36.1	186.85
TAM 112	2160	36.0	186.52
Jagalene	2030	33.8	175.25
Coronado	1963	32.7	169.45
Abilene Ag EXP. 1	1775	29.6	153.21
Fannin	1732	28.9	149.57
Jagger	1681	28.0	145.10

Table 2. Seed Treatment Test for Freeman farm. (Runnels County, 2006)

Treatment	Yield Per Acre (pounds)	Yield Per Acre (bushels)	Gross Return Per Acre @$5.18 Per Bushel
Cruiser	2434	40.4	$209.33
Raxil 5.0	2371	39.4	$203.87
Gaucho 0.75	2368	39.3	$203.58
Gaucho 0.50	2357	39.1	$202.66
Check	2300	38.2	$197.74

Table 3. Forage test results for Freeman farm. (Runnels County, 2006)

Variety	Pounds/Acre	Pounds DM/Ac	Lbs Gain	$/Ac @ $0.92 per lbs.
Coronado	1797	359	45	$41.32
Horizon 314	1737	347	43	$39.94
Longhorn	1713	343	43	$39.40
Walken	1530	306	38	$35.10
Tamcale	1465	293	37	$33.70
Sturdy 2K	1442	288	36	$33.16
WinMaster	1090	218	27	$25.06
Elbon Rye	1056	211	26	$24.29

Samples Collected March 20, 2006

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