



2003-2004 Runnels County Dryland Wheat Variety Test

Cooperators: Rodrick and Malcolm Bredemeyer

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Summary:

Sixteen wheat varieties were planted by Rodrick and Malcolm Bredemeyer on November 22, 2004 in northern Runnels County (1 mile South of Winters, Texas on Hwy 83). Jagalene, Tam 111 and Cutter topped this test with grain yields of 75.69 bushels/acre, 74.45 bushels/acre and 74.00 bushels/acre, respectively. Jagger and Coronado also performed quite well with final grain yields of 70.84 bushels/acre and 69.33 bushels/acre, respectively. Final grain yield results can be viewed on Table 1. These varieties were raised using normal dryland wheat production practices. 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:	Rodrick and Malcolm Bredemeyer
Location:	1 mile South of Winters, Texas on Hwy 83
Planting Date:	November 22, 2003
Seeding Rate:	60 lbs./acre
Drill Spacing:	8 inches
Fertilizer Applied:	48-18-0, 14S, 1 Zc
Herbicide Applied:	November 26, 2003 Ally® 1/10 oz./acre
Fungicide Applied:	April 13, 2004 Tilt® 4 oz./acre
Insecticide Applied:	December 26, 2003 Lorsban® 10 oz./acre

In each variety of wheat, a 4' X 26' plot was combine-harvested. The actual grain yields from the samples are represented on Table 1.

Results and Discussion:

Early in the growing season there was good soil moisture and temperatures that allowed for growth. Many producers in the area of the test plot received five to six inches of rain in late September and early October. Nitrogen in a form useful to plants is subject to leaching and many fields showed nitrogen deficiency for several months. That was not the case on this test plot and that was apparent at harvest with excellent yields despite the lack of rainfall through most of the critical developmental stage from bloom through grain fill. No apparent freeze injury was found in the plot. However, just 30 miles south the freezing temperatures on March 30 and again April 9 reduced yields by 10 to 50 percent.

Jagalene, Tam 111 and Cutter topped this test with grain yields of 75.69 bushels/acre, 74.45 bushels/acre and 74.00 bushels/acre, respectively. Jagger and Coronado also performed quite well with final grain yields of 70.84 bushels/acre and 69.33 bushels/acre, respectively. Final grain yield results can be viewed on Table 1.

Economic Analysis

The difference in yield between Jagalene and 2174 was 26.52 bushels. If you use a selling price of \$3.70 per bushel then the difference between the top and bottom varieties in this test was \$98.12 per acre. In this test, the higher income of the top yielding varieties was enough to justify their selection over 2174.

Table 1. Agronomic Data from Rodrick and Malcolm Bredemeyer's farm (Runnels Co., 2004)

Variety	Yield Per Acre (pounds)	Yield Per Acre (bushels)	Gross Return Per Acre @ \$3.70 Per Bushel
Jagalene	4542	75.69	\$280.06
TAM 111	4467	74.45	\$275.48
Cutter	4440	74.00	\$273.81
Jagger	4251	70.84	\$262.12
Coronado	4160	69.33	\$256.53
Sturdy 2K	3855	64.25	\$237.72
Thunderbolt	3808	63.46	\$234.80
Weathermaster 135	3673	61.22	\$226.50
TAM 110 CL	3642	60.70	\$224.57
Abilene Ag (Exp.1)	3428	57.13	\$211.39
WinTex	3357	55.95	\$207.02
Lockett	3338	55.63	\$205.83
Weathermaster 135 (treated)	3174	52.90	\$195.74
Hardeman Grain (HG-9)	3156	52.60	\$194.62
WinMaster	3117	51.95	\$192.20
2174	2950	49.17	\$181.92

NOTE: The yield data for this test was determined using a plot combine that harvested an area four feet wide and 26 feet long.

Acknowledgments:

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