



Result Demonstration Report

2002-2003 Wheat Variety Test

Cooperators: Rodrick and Malcolm Bredemeyer

Winters, Texas Runnels County Precinct 2

Rick Minzenmayer, Marty Gibbs, and Billy Warrick *

Summary

Twenty-three wheat varieties were planted by Rodrick and Malcolm Bredemeyer on November 25, 2002 in northern Runnels County (0.5 mile west of Winters, Texas). 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 20.90 bushels per acre (1989-2000). 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.

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Materials and Methods

Cooperating County Producers:	Rodrick and Malcolm Bredemeyer
Location:	0.5 mile west of Winters, Texas
Planting Date:	November 25, 2002
Seeding Rate:	60 lbs./acre
Drill Spacing:	8 inches
Soil Moisture Condition at Planting:	Adequate
Fertilizer Applied:	75 lb. N per acre
Herbicide Applied:	Amber® @ 0.35 lb./acre

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 good 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.

In each variety of wheat, four hand harvested samples were collected. 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. Due to the variability in yield between each of the hand harvested samples, a large difference in yield was necessary to be significant.

Economic Analysis

The difference in yield between Weathermaster 135, Hardeman Grain (HG-9), WinTex and WinMaster were significantly better than TAM 302, Longhorn, and 2174. The difference in gross income between the highest and lowest varieties was over \$53 per acre using a selling price of \$2.87 per bushel. In this test, the higher income of the top yielding varieties was significant enough to justify their selection over TAM 302, Longhorn, and 2174.

Conclusions

Twenty-three wheat varieties were planted by Rodrick and Malcolm Bredemeyer on November 25, 2002 in northern Runnels County (0.5 mile west of Winters, Texas). 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.

Table 1. Agronomic Data from Rodrick and Malcolm Bredemeyer's farm (Runnels Co., 2003)

Variety	Yield Per Acre (pounds)	Yield Per Acre (bushels)	Statistical Difference (same letter means no difference in yield)
Weathermaster 135	2021.3	33.7	a
Hardeman Grain (HG-9)	1989.3	33.2	ab
WinTex	1922.2	32.04	ab
WinMaster	1918.9	32.0	ab
Jagalene	1906.1	31.8	abc
Lockett	1797.4	30.0	abc
Sturdy 2K	1784.6	29.7	abcd
Abilene Ag #1	1771.8	29.5	abcd
TAM 111	1733.4	28.9	abcd
Dumas	1720.7	28.7	abcd
Thunderbolt	1669.5	27.8	abcd
Cutter	1656.7	27.6	abcd
Coronado	1656.7	27.6	abcd
Ogallala	1579.9	26.3	abcd
Jagger	1554.3	25.9	abcd
TAM 202	1420.0	23.7	abcde
812	1368.8	22.8	abcde
2158	1317.7	22.0	abcde
TAM 110CL	1285.7	21.4	bcde
TAM 400	1189.7	19.8	bcde
TAM 302	1183.3	19.7	cde
Longhorn	1100.2	18.3	de
2174	812.4	13.5	e

Acknowledgments

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