Result Demonstration Report

2002-2003 Wheat Variety Test

Cooperator: Gene Gully

Eola, Texas Tom Green County Precinct 2

Rick Minzenmayer, Michael Palmer, Marvin Ensor, and Billy Warrick *

Summary

Seventeen wheat varieties were planted by Gene Gully on December 17, 2002 in eastern Tom Green County (1 mile east and 1.5 miles south of Mereta, 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 27,342 acres of wheat are planted annually in Tom Green County. The average dryland wheat yield for the county is 21.7 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, that are equal to or exceed currently available varieties, should increase production and income of county producers.

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Dr. Billy Warrick, Extension Agronomist (San Angelo, Texas).

Materials and Methods

Cooperating County Producer:	Gene Gully
Location:	1 mile east and 1.5 miles south of Mereta, Texas
Planting Date:	December 17, 2002
Seeding Rate:	50 lbs./acre
Drill Spacing:	10 inches
Soil Moisture Condition at Planting:	Excellent
Fertilizer Applied:	85 lbs. N per acre
Herbicide Applied:	Ally 1/10 oz.
Hand Harvest Date:	June 5, 2003

Results and Discussion:

This plot had several challenges due to emergence problems. However, it did show the importance of a good herbicide program in keeping weed populations under control in a situation where adequate light was reaching the soil surface that would have caused a problem if it was not controlled.

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 Jagalene and the rest of the wheat varieties tested was significant. The difference in gross income between the highest and lowest varieties was $53.96 per acre using a selling price of $2.87 per bushel. In this test, the higher income of the top yielding variety was significant enough to justify their selection over the other wheat varieties.

Conclusions

Seventeen wheat varieties were planted by Gene Gully on December 17, 2002 in eastern Tom Green County (1 mile east and 1.5 miles south of Mereta, 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 Gene Gully's farm (Tom Green Co., 2003)

Variety	Yield Per Acre (pounds)	Yield Per Acre (bushels)	Statistical Difference (same letter means no difference in yield)
Jagalene	2002.1	33.4	a
TAM 111	1637.5	27.3	b
Cutter	1567.1	26.1	b
TAM 400	1541.6	25.7	b
Coronado	1464.8	24.4	b
Ogallala	1445.6	24.1	b
2158	1407.2	23.5	b
Thunderbolt	1349.7	22.5	b
Jagger	1292.1	21.5	bc
TAM 110CL	1260.1	21.0	bc
2174	1253.7	20.9	bc
TAM 202	1253.7	20.9	bc
TAM 302	1189.7	19.8	bc
Lockett	1100.2	18.3	bc
812	1074.6	17.9	bc
WinTex	1061.8	17.7	bc
Weathermaster 135	780.4	13.0	c

Acknowledgments

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