

2015-16 WHEAT VARIETY EVALUATION, WFREC, JAY, FLORIDA

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This report is a summary of the 2015-16 wheat variety trial at the University of Florida/IFAS West Florida Research and Education Center, Jay, Florida. It shows the performance of 11 wheat varieties. This data represents only one year and results should be considered over several locations and years before conclusions are valid.

Entries (Brand/Variety) that were evaluated:

1. Pioneer 26R59
2. Pioneer 26R41
3. Pioneer 26R94
4. Southern States SS 8415
5. Southern States SS 8629
6. UniSouth Genetics USG 3404
7. UniSouth Genetics USG 3013
8. UniSouth Genetics USG 3895
9. AGSouth Genetics AGS3000 (LA06146E-P4)
10. Dyna-Gro Baldwin

2015-16 Growing Conditions and Experimental Design

The soil type in the test area was a Red Bay sandy loam that was planted to cotton in 2015. Wheat was planted with a plot drill equipped with cone seeders on 1 Dec 2015 under conventional tillage. Entries were replicated four times. Plots were six rows spaced 7 inches apart by 25 feet long.

Standard practices for wheat production were followed throughout the season. Nitrogen was applied 12 February at 60 lb/A N and again on 24 March at 50 lb/A N. Quilt XP (14 oz/A) fungicide was applied for disease control on 30 March.

Wheat stand was determined on 2 March by counting plants in two - 24" row sections in each plot. During March and April 50% heading dates were recorded. Wheat height was measured 23 May. Lodging was visually evaluated 23 May as percent of plants lodged.

Wheat was harvested on 24 May with a small plot combine. Wheat test weight and yield at 13.5% moisture were determined. The Least Significant Difference (LSD) at 5 percent level is included in the tables to assist in comparing variety results. If the difference between

two varieties for a parameter exceeds the LSD, the varieties can be considered different for that parameter.

Weather Summary

Rainfall was much above normal in December and March, slightly above normal in March, near normal in February and April and below normal for January and May (Table 1). Rainfall during the entire wheat growing season (December through June) totaled 37.7 inches, which was 6.4 inches normal. Weather data was obtained from Florida Automated Weather Network (FAWN) station located on Jay research farm and normal represents the mean for the past 55 years of records.

Table 1. Weather conditions during 2015-16 in Jay, FL.

Month	Total rainfall (in.)	Average air temperature (°F)	Minimum air temperature (°F)	Maximum air temperature (°F)
December	9.7 (4.7 above normal)	60.8	29.6	78.6
January	3.9 (1.5 below normal)	47.6	25.4	71.3
February	5.3 (0.2 above amount)	53.3	24.7	76.6
March	10.3 (3.8 above normal)	62.7	34.7	81.8
April	5.6 (0.8 above normal)	66.8	39.8	87.9
May	2.9 (1.6 below normal)	73.1	49.8	93.9

Data Summary

Stand counts ranged from 30 to 33 plants/ft² (1,300,000 to 1,438,000 plants/A) which is within the recommended population range (Table 2). The varieties with the earliest heading dates (late March to April 10) were AGSouth Genetics AGS3000, Pioneer 26R94, Southern States SS 8415, SS 8629 and Dyna-Gro Baldwin (Table 2). The varieties that headed the latest (April 16 or later) were UniSouth Genetics USG 3895, USG 3013, USG 3404, Pioneer 26R59 and 26R41.

Wheat height on 23 May ranged from less than 30 inches for USG 3404, USG 3895 and Pioneer 26R59 to 37 inches for Baldwin (Table 3). Most of the varieties tested were 30 to 36 inches tall. Less than 10% lodging was observed for most of the varieties in the study. USG 3404 and USG 3013 exceeded 20% lodging.

The only variety yielding more than 80 bu/A was Baldwin (86 bu/A). Four varieties yielded at least 60 bu/A. These included Pioneer 26R94 (60 bu/A), SS 8415 (61 bu/A), Pioneer 26R41 (62 bu/A) and SS 8629 (67 bu/A). All other varieties yielded less than 55 bu/A.

Table 2. Stand count and 50% heading date for 2015-16 wheat entries, WFREC, Jay, FL.

Brand/Variety	Stand Count (Plants/sq.ft.)	50% Heading Date
	03/2/16	
Pioneer 26R59	31	4/21/16
Pioneer 26R41	32	4/22/16
Pioneer 26R94	33	4/1/16
Southern States SS 8415	33	4/10/16
Southern States SS 8629	32	4/9/16
UniSouth Genetics USG 3404	30	4/21/16
UniSouth Genetics USG 3013	33	4/20/16
UniSouth Genetics USG 3895	31	4/16/16
AGSouth Genetics AGS3000 (LA06146E-P4)	31	3/26/16
Dyna-Gro Baldwin	32	4/7/16
LSD (0.05)	NS	2

Table 3. Wheat height, percent lodging, test weight and yield for 2015-16 wheat entries, WFREC, Jay, FL.

Variety	Wheat Height (inches)	% Lodging	Test Weight (lb/bu)	Yield (bu/A)
	05/23/16	05/23/16	05/24/16	05/24/16
Pioneer 26R59	28	12	42	34
Pioneer 26R41	31	2	54	62
Pioneer 26R94	34	4	56	60
Southern States SS8415	35	4	50	61
Southern States SS 8629	30	6	49	67
UniSouth Genetics USG 3404	27	21	45	20
UniSouth Genetics USG 3013	32	51	38	8.8
UniSouth Genetics USG 3895	29	6	49	53
AGSouth Genetics AGS3000 (LA06146E-P4)	32	3	56	41
Dyna-Gro Baldwin	37	2	56	86
LSD (0.05)	2	10	2	13