

# 2014 Evaluation of Field Corn Varieties, Jay, Florida

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This report includes the summary of the 2014 field corn replicated variety trial at West Florida Research and Education Center, Jay, Florida. It shows the performance of 11 field corn varieties. This data represents only one year, results should be considered over several locations and years before conclusions are valid.

## Varieties that were evaluated:

1. Dyna-Gro D55QC73
2. Dyna-Gro D56VC46
3. Dyna-Gro D57VP51
4. Dyna-Gro D57VP75
5. Dekalb DKC66-40
6. Dekalb DKC68-92
7. Dekalb DKC65-19
8. Croplan 6640
9. Croplan 6926
10. Croplan 7927
11. Croplan 8621

## 2014 Growing Conditions and Experimental Design:

On 3 April 2014, field corn varieties were planted 2 seed/ft. (29,000 seed/A) under strip-tillage in a Red Bay fine sandy loam soil which had been planted to cotton in summer 2013. Prior to planting any vegetation present was killed with an application of Roundup at 1 qt./A. and granular starter fertilizer (5-15-30, 300 lb/A) was broadcast. Plots were 25-ft long and 12-ft wide, and rows were spaced 36-in. apart. Corn varieties were replicated in four randomized complete blocks. Supplemental fertilizer was applied on 13 May ( $K_2O_5$ , 85 lb/A;  $(NH)_4SO_4$ , 100 lb/A; urea, 100 lb/A; 250 lb/A Polymer Coated Urea 44-0-0). Roundup at 22 oz./A plus Dual Magnum at 1.3 pt./A were applied 22 May for weed control. The fungicide Priaxor was applied at 8 oz./A on 10 June for disease control. Data was collected from two center rows of each plot. Plots were hand harvested on 13 August. Rainfall for April and May was 11.9 and 5.8 in. above normal, June was 2.1 in. below normal, July was 0.65 in above normal and August was 1.6 in below normal in Jay, FL for 2014 (Table 1). Normal represents the mean for the past 53 years of records kept at WFREC, Jay.

**Table 1. Weather conditions during 2014 field corn trial.**

Month	Total Rainfall (in)	Average minimum air temperature (°F)	Average maximum air temperature (°F)
April	16.73 (11.93 above normal)	39.3	84.9
May	10.29 (5.79 above normal)	49.7	93.1
June	5.27 (2.13 below normal)	66.6	94.4
July	8.70 (0.65 above normal)	62.1	94.9
August	4.94 (1.58 below normal)	66.9	96.0

## Summary

Stand count for all varieties ranged from 1.77 to 2.00 plants/ft (25,628 to 29,000 plants/A) (Table 2). All varieties except Croplan 6640 (25,628 plants/A) and Dyna-Gro D57VP75 (26,000 plant/A) had similar plant populations ranging from 27,000 to 29,000 plants/A.

Corn ear height ranged from 31 to 41 in. Croplan 6926 had the lowest ear attachment while Dyna-Gro D55QC74 had the highest. Corn lodging was less than 20% for all varieties with Dekalb DKC68-92 and DKC 6519 lodged less than 5% and Dyna-Gro D55QC74, D56VC46 and D57VP75 lodged 15 to 18%. Corn yield ranged from 169 to 197 bu./A. Most varieties produced similar yields except for Dyna-Gro D57VP75, Dekalb DKC66-40, DKC6519 and Croplan 7927 which produced less than 175 bu./A. Test weights were in a narrow range from 53.5 to 58.6 lb./bu. Dyna-Gro D57VP75, Dekalb DKC66-40 and Croplan 8621 had lower test weights than the other varieties.

**Table 2: Field corn variety emergence, Jay, FL 2014.**

Cultivar	Plants/ft* (22 April)	Plants/A* (22 April)
Dyna-Gro D55QC73	1.86	26,935
Dyna-Gro D56VC46	1.86	26,935
Dyna-Gro D57VP51	1.88	27,298
Dyna-Gro D57VP75	1.80	26,063
Dekalb DKC66-40	1.89	27,370
Dekalb DKC68-92	1.89	27,370
Dekalb DKC6519	1.89	27,443
Croplan 6640	1.77	25,628
Croplan 6926	1.96	28,459
Croplan 7927	1.95	28,241
Croplan 8621	2.00	29,000
<i>LSD</i>	<i>0.13</i>	<i>1832</i>
<i>CV</i>	<i>4.64</i>	<i>4.64</i>

\*Determined from counts of two, 25-ft rows per plot.

LSD = Fisher's Protected LSD (P=0.05)

**Table 3: Field corn variety ear height, lodging, test weight and yield, Jay, FL 2014.**

Cultivar	Ear Height (in.) (7 August)	% Lodging (12 August)	Test Weight (lb./bu)	Yield (bu/A) (20 August)
Dyna-Gro D55QC73	41.6	17	57.6	192
Dyna-Gro D56VC46	35.3	15	56.8	190
Dyna-Gro D57VP51	33.8	6	58.4	197
Dyna-Gro D57VP75	39.1	18	53.5	173
Dekalb DKC66-40	37.6	13	55.8	171
Dekalb DKC68-92	34.9	4	57.0	190
Dekalb DKC6519	32.4	4	58.4	169
Croplan 6640	38.0	6	57.6	183
Croplan 6926	31.0	10	58.6	179
Croplan 7927	36.5	10	56.3	173
Croplan 8621	34.3	8	55.4	181
<i>LSD</i>	<i>4.5</i>	<i>11</i>	<i>2.3</i>	<i>20</i>
<i>CV</i>	<i>8.7</i>	<i>77.1</i>	<i>2.8</i>	<i>7.7</i>

\*Determined from counts of two, 25-ft rows per plot.

LSD = Fisher's Protected LSD (P=0.05)