

# 2015 Evaluation of Field Corn Varieties, Jay, Florida

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This report includes the summary of the 2015 field corn small plot replicated variety trial (OVT) and large plot demonstration trial at West Florida Research and Education Center, Jay, Florida. It shows the performance of 30 field corn varieties in the OVT Trial and 25 varieties in the Demonstration Trial. This data represents only one year, results should be considered over several locations and years before conclusions are valid.

## OVT Entries that were evaluated: (Brand/Hybrid)

- |                        |                               |
|------------------------|-------------------------------|
| 1. Dyna-Gro D55QC73    | 16. Terral REV 25BHR26        |
| 2. Dyna-Gro D56VC46    | 17. Terral REV 25BHR44        |
| 3. Dyna-Gro D57VP51    | 18. Terral REV 26BHR50        |
| 4. Dyna-Gro D58QC72    | 19. Terral REV 28HR20         |
| 5. Dyna-Gro CX15118    | 20. Augusta A7068VT2Pro PV500 |
| 6. Dekalb DKC62-08     | 21. Augusta A008VT3Pro C250   |
| 7. Dekalb DKC64-69     | 22. Augusta A7767V2Pro C250   |
| 8. Dekalb DKC65-20     | 23. Croplan 5570 vt2p         |
| 9. Dekalb DKC66-97     | 24. Croplan 6640 vt3p         |
| 10. Dekalb DKC67-72    | 25. Croplan 8512 DGvt2p       |
| 11. Pioneer P1319VYHR  | 26. Croplan 8621 vt2p         |
| 12. Pioneer P15229YHR  | 27. Syngenta N83D-3000GT      |
| 13. Pioneer P1690YHR   | 28. Syngenta N79T-3111        |
| 14. Pioneer P1916YHR   | 29. Syngenta N76A-GT/LL/CB    |
| 15. Terral REV 23BHR55 | 30. Syngenta N79M-GT/LL/CB    |

## 2015 OVT Growing Conditions and Experimental Design:

On 26 March, 2015, 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 2014. Plots were 25-ft long by 12-ft wide, and rows were spaced 36-in. apart. Corn varieties were replicated in four randomized complete blocks. Prior to planting any vegetation present was killed with an application of Roundup at 1 qt./A. and granular starter fertilizer (5-15-30, 150 lb/A) was broadcast. Dual Magnum (1.3 pt/A) + Atrazine (3 pt/A) were applied 27 March, 2015. Supplemental fertilizer was applied on 23 April ( (NH)<sub>4</sub>SO<sub>4</sub>, 100 lb/A; urea,

238 lb/A; 238 lb/A Polymer Coated Urea 44-0-0). Roundup at 22 oz./A was applied 11 May for weed control. The fungicide Priaxor was applied at 8 oz./A on 5 June for disease control to the OVT trial. Data was collected from two center rows of each plot. Plots were harvested on 5 August. Rainfall for April was 7.83 in. above normal, May and June were 1.85 and 3.10 in. below normal, while July was 1.11 in. above normal in Jay, FL for 2015 (Table 1). Normal represents the mean for the past 54 years of records kept at WFREC, Jay.

**Table 1. Weather conditions during 2015 field corn trial.**

Month	Total Rainfall (in)	Average minimum air temperature (°F)	Average maximum air temperature (°F)
April	12.63 (7.83 above normal)	45.7	88.0
May	2.65 (1.85 below normal)	49.6	90.7
June	4.30 (3.10 below normal)	67.2	98.0
July	9.16 (1.11 above normal)	66.5	98.2

## OVT Summary

Stand count for all varieties ranged from 1.61 to 1.92 plants/ft (23,300 to 27,880 plants/A) (Table 2). All varieties except D55QC73, D56VC46, D57VP51, P1916YHR and REV 26BHR50 had populations in excess of 26,000 plants/A.

Corn lodging ranged from 0 to 15%. CX15118, P1690YHR and 6640 vt3p were the only varieties with more than 10% lodging. Corn yield ranged from 162 to 217 bu./A. Most varieties produced similar yields except for D55QC73, DKC66-97 and N79T-3111 which produced less than 170 bu./A and DKC67-62, P1690YHR and 6640 vt3p which yielded in excess of 200 bu/A. Test weights were in a range from 53.5 to 59.3 lb./bu. A008VT2Pro, 8621 vt2p and N76A-GT/LL/CB had lower test weights than the other varieties (less than 54 lb/bu).

**Table 2: OVT field corn variety emergence, Jay, FL 2015.**

<b>Brand</b>	<b>Hybrid</b>	<b>Plants/ft* 4/22/15</b>	<b>Plants/A* 4/22/15</b>
Dyna-Gro	D55QC73	1.61	23300
Dyna-Gro	D56VC46	1.76	25550
Dyna-Gro	D57VP51	1.71	24760
Dyna-Gro	D58QC72	1.87	27150
Dyna-Gro	CX15118	1.82	26350
Dekalb	DKC62-08	1.86	26940
Dekalb	DKC64-69	1.85	26790
Dekalb	DKC65-20	1.81	26210
Dekalb	DKC66-97	1.91	27660
Dekalb	DKC67-72	1.85	26790
Pioneer	P1319VYHR	1.86	26940
Pioneer	P15229YHR	1.85	26860
Pioneer	P1690YHR	1.85	26860
Pioneer	P1916YHR	1.74	25190
Terral	REV 23BHR55	1.86	26940
Terral	REV 25BHR26	1.84	26640
Terral	REV 25BHR44	1.82	26350
Terral	REV 26BHR50	1.78	25770
Terral	REV 28HR20	1.87	27150
Augusta	A7068VT2Pro PV500	1.90	27590
Augusta	A008VT3Pro C250	1.89	27440
Augusta	A7767V2Pro C250	1.83	26500
Croplan	5570 vt2p	1.84	26720
Croplan	6640 vt3p	1.86	26940
Croplan	8512 DGvt2p	1.89	27370
Croplan	8621 vt2p	1.88	27230
Syngenta	N83D-3000GT	1.92	27880
Syngenta	N79T-3111	1.86	27010
Syngenta	N76A-GT/LL/CB	1.91	27730
Syngenta	N79M-GT/LL/CB	1.88	27300
LSD		0.10	1570
CV		4.2	4.2

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

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

**Table 3: OVT field corn variety tasseling date, lodging, test weight and yield, Jay, FL 2015.**

<b>Brand</b>	<b>Hybrid</b>	<b>50% Tassel Date</b>	<b>% Lodging 8/3/15</b>	<b>Yield (bu/A) 8/5/15</b>	<b>Test Wt.(lb/bu) 8/5/15</b>
Dyna-Gro	D55QC73	06/01/15	8	162	55.7
Dyna-Gro	D56VC46	05/30/15	0	195	55.5
Dyna-Gro	D57VP51	05/28/15	0	188	56.3
Dyna-Gro	D58QC72	05/29/15	4	179	54.3
Dyna-Gro	CX15118	05/27/15	13	194	54.7
Dekalb	DKC62-08	05/27/15	6	193	56.1
Dekalb	DKC64-69	05/29/15	1	188	55.4
Dekalb	DKC65-20	05/28/15	8	170	57.1
Dekalb	DKC66-97	05/27/15	0	165	57.4
<b>Dekalb</b>	<b>DKC67-72</b>	<b>05/27/15</b>	<b>3</b>	<b>217</b>	<b>55.9</b>
Pioneer	P1319VYHR	05/29/15	9	170	56.9
Pioneer	P15229YHR	05/31/15	4	192	57.6
<b>Pioneer</b>	<b>P1690YHR</b>	<b>06/01/15</b>	<b>10</b>	<b>202</b>	<b>55.6</b>
Pioneer	P1916YHR	06/01/15	3	182	57.2
Terral	REV 23BHR55	05/29/15	0	189	54.9
Terral	REV 25BHR26	05/31/15	5	182	56.9
Terral	REV 25BHR44	06/01/15	1	180	56.9
Terral	REV 26BHR50	05/30/15	9	186	59.3
Terral	REV 28HR20	06/04/15	1	192	56.8
Augusta	A7068VT2Pro PV500	05/29/15	6	195	56.6
Augusta	A008VT3Pro C250	05/30/15	3	182	53.3
Augusta	A7767V2Pro C250	05/29/15	0	193	56.0
Croplan	5570 vt2p	05/29/15	3	175	56.5
<b>Croplan</b>	<b>6640 vt3p</b>	<b>05/28/15</b>	<b>14</b>	<b>200</b>	<b>56.0</b>
Croplan	8512 DGvt2p	05/27/15	6	189	55.9
Croplan	8621 vt2p	05/28/15	4	189	53.8
Syngenta	N83D-3000GT	05/30/15	0	199	54.6
Syngenta	N79T-3111	05/27/15	8	165	56.0
Syngenta	N76A-GT/LL/CB	05/27/15	5	182	53.5
Syngenta	N79M-GT/LL/CB	06/04/15	5	168	49.5
LSD		1.8	6	24	1.9
CV		--		9.3	2.5

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

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

## Demonstration Entries that were evaluated: (Brand/Hybrid)

1. Dyna-Gro D55QC73
2. Dyna-Gro D56VC46
3. Dyna-Gro D57VP51
4. Dyna-Gro D58QC72
5. Dyna-Gro CX15118
6. Dekalb DKC62-08
7. Dekalb DKC64-69
8. Dekalb DKC65-20
9. Dekalb DKC66-97
10. Dekalb DKC67-72
11. Pioneer P1319VYHR
12. Pioneer P15229YHR
13. Pioneer P1690YHR
14. Pioneer P1916YHR
15. Terral REV 23BHR55
16. Terral REV 25BHR26
17. Terral REV 25BHR44
18. Terral REV 26BHR50
19. Terral REV 28HR20
20. Croplan 5570 vt2p
21. Croplan 6640 vt3p
22. Croplan 8512 DGvt2p
23. Croplan 8621 vt2p
24. Syngenta N83D-3000GT
25. Syngenta N79T-3111

## 2015 Demonstration Growing Conditions and Experimental Design:

Growing conditions were identical to those for the OVT Trial listed above except the non-replicated plots were 8 rows wide by 800 ft long and **no fungicide was applied** to the Demonstration Trial.

## Demonstration Summary

Corn lodging ranged from 5 to 60% for corn not treated with fungicide compared to 0 to 15% when corn was treated with a fungicide in early June (Table 4). D55QC73, D56VC46, D57VP51, CX15118, DKC62-08, 5570, 6640, and 8512 lodged 10% or less while D58QC72, DKC67-72, P15229VYHR, P1690YHR, REV 23BHR55, REV 25BHR26, REV 25BHR44 and REV 28HR20 lodged 35% or greater with no fungicide (Table 4). Corn yield ranged from 117 to 211 bu./A when no fungicide was applied. These yields were generally lower than those from the same varieties treated with fungicide. Some of these differences may have been due to the higher level of lodging in the plots with no fungicide which greatly reduced harvest efficiency.

**Table 4: Field corn demonstration trial lodging and yield, Jay, FL 2015.**

Brand	Hybrid	% Lodging	% Lodging	Yield (bu/A)	Yield (bu/A)
		No Fungicide	With Fungicide	No Fungicide	With Fungicide
Dyna-Gro	D55QC73	10	8	117	162
Dyna-Gro	D56VC46	10	0	169	195
Dyna-Gro	D57VP51	5	0	174	188
Dyna-Gro	D58QC72	60	4	134	179
Dyna-Gro	CX15118	10	13	157	194
Dekalb	DKC62-08	10	6	175	193
Dekalb	DKC64-69	25	1	211	188
Dekalb	DKC65-20	25	8	125	170
Dekalb	DKC66-97	15	0	174	165
Dekalb	DKC67-72	30	3	201	217
Pioneer	P1319VYHR	25	9	162	170
Pioneer	P15229YHR	55	4	159	192
Pioneer	P1690YHR	35	10	163	202
Pioneer	P1916YHR	20	3	162	182
Terral	REV 23BHR55	25	0	160	189
Terral	REV 25BHR26	35	5	162	182
Terral	REV 25BHR44	35	1	173	180
Terral	REV 26BHR50	25	9	152	186
Terral	REV 28HR20	35	1	178	192
Croplan	5570 vt2p	10	3	164	175
Croplan	6640 vt3p	10	14	123	200
Croplan	8512 DGvt2p	10	6	159	189
Croplan	8621 vt2p	20	4	160	189
Syngenta	N83D-3000GT	20	0	173	199
Syngenta	N79T-3111	20	8	152	165