



Narrow Row Corn Planting Date Study – 2008

Planted: Various
Harvested: October 9, 2008
Soil Type: Ragsdale Silt Loam / Uniontown Silt Loam
Population: 32,000 seeds/A.
Previous Crop: Corn

Tillage: Disc / Chisel
 Field Cultivator
Herbicide: 3 qts. Degree Xtra
 1 qt. Atrazine
Insecticide: 6 oz. Artic
Product Tested: BECK 5444VT3

RAINFALL	
April	4.64 in.
May	6.36 in.
June	3.12 in.
July	8.90 in.
August	0.80 in.
Total	23.82 in.

Purpose: In previous tests at the Southern PFR farm we have seen little advantage to using narrow rows in corn unless planting populations were increased significantly. This study was conducted to see if narrow rows might show more of an advantage at later planting dates compared to our normal April planting.

Planting Date	Harvested Population	Test* Weight	Percent Moisture	Bushels* Per Acre	30" Row Yield Advantage
April 28th, 2008					
30" Rows	28,750	56.9	17.5	236.0	+10.1
15" Rows	<u>27,916</u>	<u>56.5</u>	<u>17.1</u>	<u>225.9</u>	
AVERAGE	28,333	56.7	17.3	231.0	
May 20th, 2008					
30" Rows	31,483	58.4	17.9	230.8	+15.6
15" Rows	<u>28,000</u>	<u>57.6</u>	<u>17.8</u>	<u>215.2</u>	
AVERAGE	29,741	58.0	17.9	223.0	

Summary: This years study shows a significant advantage in favor of planting corn in 30" rows over 15" rows. One should note that final stands for the 15" row entries were 834 plants per acre lower on the April 28th planting date and 3,483 plants per acre lower on the May 20th planting date. A six row Kinze 2000 planter with front interplant units was used to plant this study. The configuration is such that four out of the five front units have the wheels of the planter running back over the planted rows. This appeared to create some emergence issues with the interplant rows, particularly under heavy soil conditions on the May 20th planting. The idea behind this study was to evaluate if 15" rows may show more of an advantage at later planting dates due to a shorter growing season and limited sunlight which would be similar to planting corn further north where narrow rows have shown more benefit.



Narrow Row Corn Population Study – 2008

Planted: April 25, 2008
Harvested: September 18, 2008
Soil Type: Uniontown Silt Loam
Rows: Six 30" rows
Population: Various

Previous Crop: Soybeans
Tillage: Disc / Chisel / Field Cultivator
Herbicide: 3 qts. Degree Xtra
 1 qt. Atrazine
Insecticide: 6 oz. Artic

RAINFALL	
April	4.64 in.
May	6.36 in.
June	3.12 in.
July	8.90 in.
August	0.80 in.
Total	23.82 in.

Purpose: This study is designed to evaluate two different hybrids, one with a flex-length ear and the second with a flex-girth ear, in both 30" rows and 15" rows. A third entry was added to see if there might be a yield advantage to planting 15" rows at a higher population.

Brand	Planted Population	Harvested Population	Test* Weight	Percent Moisture	Bushels* Per Acre	15" Row Yield Advantage
BECK 5684VT3 (Flex-length ear)						
30" Rows	32,000	27,500	56.1	22.4	213.7	
15" Rows	32,000	26,750	55.5	22.4	202.5	-11.2
15" Rows	36,000	<u>30,500</u>	<u>55.4</u>	<u>21.7</u>	<u>221.2</u>	+7.5
AVERAGE		28,250	55.7	22.2	212.5	
BECK 5444VT3 (Flex-girth ear)						
30" Rows	32,000	30,000	57.3	23.0	207.4	
15" Rows	32,000	26,250	56.6	24.6	211.1	+3.7
15" Rows	36,000	<u>29,750</u>	<u>56.2</u>	<u>24.5</u>	<u>207.7</u>	+0.3
AVERAGE		28,667	56.7	24.0	208.7	

*Bushels per acre and test weight corrected to 15% moisture.

Summary: Although BECK 5684VT3 did not show a yield gain going from 30" rows to 15" at 32,000 seeds/acre, increasing planting population to 36,000 seeds per acre in 15" resulted in a 7.5 bushel yield advantage over the 30" row check. BECK 5444VT3 showed a 3.7 bushel yield gain over the 30" row check at 32,000 seeds per acre. Increasing planting population to 36,000 seeds per acre in 15" rows did not result in a significant yield gain. Previous studies at the Southern PFR farm have shown a slight yield advantages for both flex-length and flex-girth hybrids planted at high populations in narrow rows while showing little to no yield benefit in narrow rows at more moderate populations.