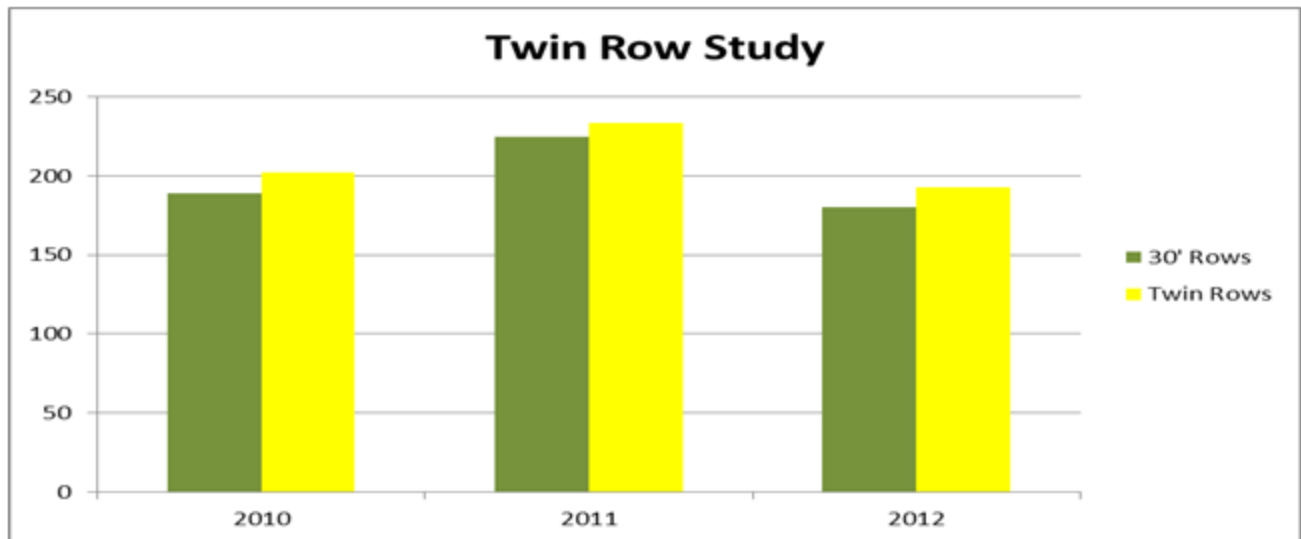


Twin Row/ Narrow Row Study

The purpose of conducting this study is learning how to manage narrow rows and how to improve consistency in the performance versus 30" rows. Listed below are some of the things we've implemented to achieve our goal.

- Adjust planting population up 2-4000 vs. 30" rows
- Apply fungicide @ V3-V4 to improve plant health
- Increase the rate of starter fertilizer by 50%
- Select hybrids suited to narrow rows per seed company recommendations
- Apply herbicides @ V3-V4 to ensure clean field before canopy closure
- Sidedress nitrogen as a standard practice



- 11.3 bushel average over 3 years.

Conclusion: Earlybird feels narrow rows are a future change that is coming to agriculture with the potential to bring additional yield and profit to growers. Similar to past changes in crop row width, narrow rows will require a change in some of our current agronomic practices. Through information gathered in our 3 year study, Earlybird has gained some valuable information on how to best manage these changes and lower the learning curve moving forward. Please contact us if you have any further questions.

Twin Row Study- Hybrid by Population by Nitrogen Rate

The purpose of conducting this study is learning about the interaction between narrow rows, hybrids, planting populations and nitrogen rates. The study included 9 different hybrids over 5 plot locations for 3 years. The incremental nitrogen was added on top of the growers planned fertility program.

Nitrogen by Population			Population by Nitrogen			Nitrogen Comparison		
Low/0N	226.7		Low/0N	226.7		0 N	226.6	
Low/30N	232.1	5.4	Mid/0N	227.9	1.2	30 N	232.5	5.9
Low/60N	235.8	3.7	High/0N	227.1	-0.8	60 N	237.1	4.6
Mid/0N	227.9		Low/30N	232.1				
Mid/30N	232.6	4.7	Mid/30N	232.6	0.5			
Mid/60N	236.9	4.3	High/30N	234.0	1.4			
High/0N	227.1		Low/60N	235.8		Population Comparison		
High/30N	234.0	6.9	Mid/60N	236.9	1.1	Low	231.5	
High/60N	239.3	5.3	High/60N	239.3	2.4	Mid	232.5	0.9
						High	233.5	1.0

Based on the data we've collected, Earlybird has made the following observations:

- Yield was only enhanced in 2 out of the 5 plots over 3 years by increasing planting population. There was very little variation in hybrids and how they respond to higher plant populations. Only 1 out of the 9 hybrids showed a positive ROI with a higher seeding rate.
Earlybird feels that the current hybrids are bred for a target range of 33,000-35,000.
- Yield was enhanced by additional nitrogen applied at V6 via sidedress in 4 out of the 5 plots over 3 years. There was very little variation in hybrids and how they responded to higher nitrogen rates. 8 out of the 9 hybrids tested showed a positive ROI by adding incremental nitrogen at 30# and at 60#.
Adding incremental nitrogen helps sustain the plant later into the growing season and provided a nice ROI.