

Strip Crop Study – 2007

Planted: Various
Harvested: Various
Soil Type: Ragsdale Silt Loam
Population: Corn 34,000 seeds/A.
 Soybeans 130,000 seeds/A.

Previous Crop: Corn
Tillage: Disc Ripper
 Field Cultivator
Herbicide: 2 pts. Dual II Magnum
Insecticide: 8 oz. Artic

RAINFALL	
April	3.08 in.
May	3.17 in.
June	2.97 in.
July	1.24 in.
August	<u>0.72 in.</u>
Total	11.18 in.

Purpose: This study was established to take a look into alternative cropping systems which producers might be able to implement to maximize crop production output and profitability on highly managed acres. This is the third year of a multi-year study to determine how sunlight interception and row direction can be used to maximize yield. All rows were planted north to south. A sixty foot block of 30 inch row corn and a sixty foot block of 15 inch row soybeans were planted to represent a normal field planting environment. Then alternating 30 foot strips of both 30 inch corn rows and 15 inch soybean rows were planted on various planting dates. Different scenarios that revolve around planting dates and strips versus a traditional block planting situation will be evaluated to determine whether this system provides increased profitability.

Planting Date	Harvest Date	Brand	Number of Rows	Percent Moisture	Bushels* Per Acre
<u>CORN</u>					
April 21, 2007	August 30, 2007	BECK 5444CBRR	East 6 Rows of Block	19.0	273.1
			Center 12 Rows of Block	17.6	263.3
			West 6 Rows of Block	<u>21.2</u>	<u>270.8</u>
			Average	19.2	269.1
April 21, 2007	August 30, 2007	BECK 5444CBRR	12 Row Strip	19.8	265.2
May 1, 2007	September 10, 2007	BECK 5444CBRR	12 Row Strip	18.1	237.5
May 8, 2007	September 10, 2007	BECK 5444CBRR	12 Row Strip	20.1	245.7
May 15, 2007	September 10, 2007	BECK 5444CBRR	12 Row Strip	25.8	218.6
<u>SOYBEANS</u>					
May 1, 2007	September 24, 2007	BECK 422NRR	East 11 Rows of Block	10.8	77.0
			Center 22 Rows of Block	10.5	77.3
			West 11 Rows of Block	<u>10.0</u>	<u>71.3</u>
			Average	10.4	75.2
May 1, 2007	September 24, 2007	BECK 422NRR	22 Row Strip	9.8	68.5
			22 Row Strip	9.5	65.7
May 14, 2007	September 24, 2007	BECK 422NRR	22 Row Strip	9.8	65.0
May 21, 2007	September 24, 2007	BECK 422NRR	22 Row Strip	10.3	61.0

*Bushels per acre corrected to 15% moisture. Plot weighed by BECK'S Hybrids – Scott Ebelhar.



"BECK 5616 is just a good corn. This has been a really tough year for growing conditions and BECK 5616 has been outstanding. It emerged well, it has a beautiful dark green color with excellent stalks, it's shoulder high and as even a stand as you could hope for. It's healthy, it handles stress very well. BECK 5616 was my best corn last year. It will, no doubt, be the best corn in my area this year. I could not have made a better choice than BECK 5616, it just looks great!"

Don Erxleben
 Decatur, IN



Strip Crop Study – Continued

Income Scenarios (The scenarios listed below represent the five different planting dates that were planted in our trial.)

Traditional Block

April 21st Corn Block (Center 12 rows)	\$861.52/A.
May 1st Soybean Block (Center 22 rows)	\$637.73/A.
Average	\$749.62/A.

Mid April Corn/Early May Soybeans

April 21st Corn Strip (30 ft. Strip)	\$850.23/A.
May 1st Soybean Strip (30 ft. Strip)	\$565.13/A.
Average	\$707.68/A.

Early May Corn/Early May Soybeans

May 1st Corn Strip (30 ft. Strip)	\$773.54/A.
May 1st Soybean Strip (30 ft. Strip)	\$542.03/A.
Average	\$657.78/A.

Early May Corn/Mid May Soybeans

May 8th Corn Strip (30 ft. Strip)	\$781.92/A.
May 14th Soybean Strip (30 ft. Strip)	\$536.25/A.
Average	\$659.08/A.

Mid May Corn/Late May Soybeans

May 15th Corn Strip (30 ft. Strip)	\$732.31/A.
May 21st Soybean Strip (30 ft. Strip)	\$503.25/A.
Average	\$617.78/A.

Average Gross \$ per acre based on average market price of \$3.35 for Corn minus drying cost of \$0.03 per point per bushel and \$8.25 for Soybeans.

Summary: In 2007, corn planted in strips out-yielded the block planting scenario on the same date, however the block had the winning corn Gross \$ per acre when moisture was factored in. 30 ft. strips planted on the same day as the block out yielded the traditional block by 8.8 Bu./A. in 2006. As for soybeans, the same yield drag in strips compared to the traditional block was noted as in previous years. Although 15 ft. strips proved to make the strip crop planting a profitable cultural practice in previous years, 30 ft. strips were used this year to represent planter widths that might actually be used in larger scale field production. Widening the strips in both 2006 and 2007 minimized the benefit of the additional sunlight on the corn strips, thus preventing strip cropping at the Southern PFR farm from being profitable over the past two years using 30 ft. strips.



Nitrogen Form Study on Corn – 2007

Planted: April 24, 2007
Harvested: September 15, 2007
Rows: Three 30" rows
Population: 34,000 seeds/A.
Soil Type: Ragsdale Silt Loam

Previous Crop: Corn
Tillage: Disc Ripper, Field Cultivator
Herbicide: Degree Xtra / Atrazine
 Roundup Original Max
Insecticide: Artic

RAINFALL	
April	3.08 in.
May	3.17 in.
June	2.97 in.
July	1.24 in.
August	0.72 in.
Total	11.18 in.

Purpose: With significant increases in nitrogen prices over the past couple of years, farmers are looking for the most economical rates and forms. This study compares four forms of nitrogen (Urea, ESN, 28%, NH₃) on four different genetic families. ESN (Environmentally Smart Nitrogen) is encapsulated Urea that can be used to minimize volatilization of urea. 200 lbs. of urea and ESN and NH₃ were incorporated prior to planting. 28% liquid nitrogen was side-dressed at V3.

Brand	Urea		ESN		28%		NH ₃		Average Bushels* Per Acre
	Bu./A.*	\$ Return Per Acre	Bu./A.*	\$ Return Per Acre	Bu./A.*	\$ Return Per Acre	Bu./A.*	\$ Return Per Acre	
BECK 6722CBWRR	266.3	\$789.31	254.4	\$719.75	244.7	\$704.33	267.8	\$811.46	258.3
BECK 5444CBWRR	221.0	\$642.35	221.7	\$616.70	236.9	\$693.62	244.0	\$747.40	230.9
BECK 5616CBWRR	223.6	\$651.06	227.2	\$635.12	222.6	\$645.71	211.7	\$639.20	221.3
BECK 7916CBRR	218.2	\$625.44	216.2	\$596.00	221.0	\$629.74	212.6	\$632.01	217.0
AVERAGE	232.3	\$677.04	229.9	\$641.89	231.3	\$668.35	234.0	\$707.51	231.9

*Bushels per acre corrected to 15% moisture. Plot weighed by BECK'S Hybrids – Scott Ebelhar. Nitrogen prices based on \$450/ton Urea, \$575/ton ESN, \$575/ton NH₃ and \$280/ton 28% liquid nitrogen. Corn price based on \$3.35/Bu. Drying costs at \$.03/pt. of moisture were also removed.

Summary: There was less than a 5 Bu./A. difference between the average yields of each of the nitrogen forms tested. NH₃ provided the highest return per acre due to this form being the most inexpensive form per lbs. of actual nitrogen applied and a slightly higher average yield. Urea showed a 2.3 Bu./A. advantage over ESN at the Southern PFR farm in 2007. Data from this same test conducted at Atlanta in 2006 showed a 3.5 Bu./A. advantage for ESN over urea.