

## BECK'S 300 Bu. Attempt – 2004

<b>Location:</b>	300-1, 4 S. plots	<b>Fertilizer:</b>	Fall Plowdown:	300#	6-15-40	18# N	
<b>Rows:</b>	Four 30" Rows		Spring Broadcast	250#	21-0-0-24S	52# N	
<b>Soil Type:</b>	Genesee Silt Loam		(AMS)				
<b>Tillage:</b>	Cont. Corn: Plow / S-tine		Chicken Manure:	2 Tons		3# N	
	Corn After Beans: V-Rip / S-tine					44# Organic N	
<b>Insecticide:</b>	Aztec		Weed & Feed:	18 gal.	28-0-0	53# N	
<b>Herbicide:</b>	Pre: 2.3 qts. Bicep II Magnum		Starter Mix:	8.5 gal.	28-0-0		
	1 qt. Princep			8.5 gal.	10-34-0	35# N	
	Post: 3 oz. Callisto		Sidedress:	40 gal.	28-0-0	119# N	
	1 qt. Aatrex					324# N	Includes 44# Organic N

**Purpose:** In our attempt to reach 300 bushels per acre, we have tried several different approaches in the past 24 years. In the early years, we increased our populations and applied extremely high rates of fertilizer as well as some micronutrients. In the middle years, we tried using different tillage methods like v-rip, chisel, and moldboard plow. From 1991 to 2002 we tested zone-till vs. conventional to study the long-term effects of these methods.

In 2003, we tested ultra-high populations and twin rows using conventional-till practices. Now in 2004, a next phase of research will compare crop rotation patterns where we will look at continuous corn, two-year corn/one year bean, and corn after soybean rotations. In addition, we applied 2 Ton/A. of chicken manure to this year's plot.

Brand-Hybrid	Harvested Population	Test Weight	Percent Moisture	Bushels* Per Acre
<b><u>CONTINUOUS CORN (EARLY HARVEST – SEPTEMBER 7, 2004)</u></b>				
BECK EX 2460	33,500	53.9	31.8	267.1
BECK 5597	33,000	55.4	30.4	255.6
BECK EX 1362	34,500	54.3	24.6	244.7
BECK 5538	33,500	57.9	26.9	240.8
BECK 5399CBRR	33,500	54.3	23.5	235.2
BECK 5959CB	33,500	54.2	32.6	235.2
BECK 5366	32,500	53.9	28.8	234.6
BECK 6197CB	<u>32,000</u>	<u>52.5</u>	<u>33.7</u>	<u>231.4</u>
AVERAGE	33,250	54.6	29.0	243.1
<b><u>CONTINUOUS CORN (HARVESTED – SEPTEMBER 25, 2004)</u></b>				
BECK EX 2460	28,000	55.3	18.5	253.2
BECK 5366	32,000	57.7	15.5	252.5
BECK 5538	33,500	59.8	15.7	251.5
BECK 5597	30,000	58.2	15.6	244.1
BECK 5399CBRR	31,500	56.6	14.6	240.5
BECK 6197CB	32,000	55.1	18.7	240.3
BECK EX 1362	32,000	56.9	15.0	235.3
BECK 5959CB	<u>33,500</u>	<u>55.6</u>	<u>18.2</u>	<u>228.7</u>
AVERAGE	31,563	56.9	16.5	243.3
<b><u>CORN AFTER SOYBEANS (HARVESTED – SEPTEMBER 25, 2004)</u></b>				
BECK 5538	33,000	58.0	16.0	267.6
BECK EX 2460	33,500	54.5	20.1	265.4
BECK 5597	33,000	57.0	16.0	263.7
BECK 5399CBRR	32,500	56.0	14.4	254.2
BECK 6197CB	32,500	53.5	21.4	253.9
BECK 5366	33,000	56.5	15.0	251.9
BECK EX 1362	34,000	57.5	15.6	235.8
BECK 5959CB	<u>33,000</u>	<u>56.0</u>	<u>19.0</u>	<u>228.7</u>
AVERAGE	33,063	56.1	17.2	252.7

\*Bushels per acre corrected to 15% moisture.

## BECK'S 300 Bu. Attempt (continued) – 2004

**Summary:** While this year's attempt at 300 bushels per acre fell short of the 300 bushel mark, the corn after bean test produced the second highest plot average in this fourteen year study (252.7 Bu./A.). The highest average came from 1994 (259.1 Bu./A.), the year we reached 308 Bu./A. We anticipated even higher yields this year given the fertility program, early planting date, and favorable weather throughout the growing season. One characteristic we noticed in this year's plot was the consistent ear size, even at the higher population of 33,000 final stand.

## BECK'S Technology Trait & Early Plant Corn (EPC) Study - 2004

**Location:** A3 N. plot  
**Planted:** April 14, 2004  
**Harvested:** September 20, 2004  
**Rows:** Four 30" rows  
**Population:** 27,818 seeds/A.  
**Soil Type:** Crosby / Miami

**Previous Crop:** Corn  
**Tillage:** V-Rip / S-tine  
**Herbicide:** PPI: 2.3 qts. Bicep II Magnum  
 1.0 qt. Princep  
 Post: 3 oz. Callisto / 1 qt. Aatrex /  
 3 oz. Hornet  
**Insecticide:** Aztec on non RW (except where noted.)

RAINFALL	
April	1.2 in.
May	5.2 in.
June	7.4 in.
July	2.8 in.
August	3.5 in.
Total	20.1 in.

**Purpose:** We designed this one rep. demonstration plot to showcase the many different trait versions of our popular 5322 hybrid. The plot exhibits both traits and trait stacks that are 1) currently being offered, 2) traits that are offered but final sale is pending Japanese approval, and 3) traits that are available, but currently not offered by Beck's.

We are also demonstrating the use of Intellicoat Early Plant® corn technology along with a trait. Utilizing stacked traits such as YieldGard Rootworm and YieldGard Corn Borer with the Early Plant technology eliminates the need for insecticides for corn borer control and removes the concern of granular insecticides that fail due to early application on an early planting date.

Yield Rank	Brand-Hybrid	Harvested Population	Test Weight	Percent Broken Stalks	Percent Moisture	Bushels* Per Acre
1	BECK 5322CB - EPC	26,500	54.9	0.0	25.4	242.9
2	BECK 5322CBRWRR**	27,000	55.6	0.0	24.1	238.8
3	BECK 5322CBRWRR‡	28,000	55.1	0.0	25.2	237.9
4	BECK 5322RW with Aztec	28,500	55.4	0.0	24.3	235.8
5	BECK 5322	29,000	55.0	0.0	24.6	234.8
6	BECK 5388RR	29,000	55.0	0.0	24.4	234.7
7	BECK 5322RWRR***	29,000	55.3	0.0	24.4	234.5
8	BECK 5322CB	28,000	55.4	0.0	25.5	234.2
9	BECK 5322	25,500	55.5	0.0	24.4	228.8
10	BECK 5322CBRW	27,500	55.3	0.0	25.0	226.4
11	BECK 5399CBRR	27,000	54.9	0.0	25.1	225.1
	AVERAGE	27,727	55.2	0.0	24.8	234.0

\*Bushels per acre corrected to 15% moisture.

\*\*Sale of 5322CBRWRR is pending Japan approval.

‡Alternate version of 5322CBRWRR.

\*\*\* Not currently offered for sale.

**Summary:** This small test strip does not provide sufficient information for determining actual yield differences, but it does provide a good visual observation area for looking at plant characteristics that may vary. One of the consistent differences occurs in the corn borer single trait or stacked trait hybrids: the corn borer versions are 0.5% to 1.0% higher moisture than the hybrids without the corn borer trait in nearly every example. The lack of feeding sites from corn borers reduces diseases from entering the plant, thereby providing a healthier plant longer in the season.

