

BECK'S 7.5" vs. 15" vs. 30" Population Study – 2007

Location: E3 E. plot
Planted: April 24, 2007
Harvested: September 17, 2007
Rows: Various
Seeding Rate: Various
Previous Crop: Corn
Tillage: V-Rip / S-Tine
Herbicide: 32 oz. Roundup Original Max

RAINFALL	
April	2.88 in.
May	1.12 in.
June	4.14 in.
July	1.85 in.
August	<u>5.68 in.</u>
Total	15.67 in.

Purpose: Soybean varieties can vary greatly in their structure and ability to branch. Selecting the correct variety for your soil type along with knowing how that variety responds to various populations and row spacing is critical for maximizing yield. This study compares two different Beck's soybean products at 7.5", 15" and 30" row spacing. This year we also planted each row spacing at three different populations. In prior years we planted each row spacing at one single rate for the row width being tested.

Brand	Target Pop.	7.5" ROWS		15" ROWS		30" ROWS		Bu./A.* Average
		Emerged Pop.	Bu./A.*	Emerged Pop.	Bu./A.*	Emerged Pop.	Bu./A.*	
BECK 274NRR	130,000	157,740	49.1	102,366	55.8	94,743	54.2	53.0
	160,000	132,062	54.0	80,586	54.7	118,701	51.8	53.5
	190,000	165,077	51.0	130,680	57.7	124,146	57.2	55.3
BECK 342NRR	130,000	117,388	52.5	119,790	57.4	113,256	62.2	57.4
	160,000	154,072	53.8	139,392	61.1	124,146	56.0	57.0
	190,000	<u>157,740</u>	<u>51.1</u>	<u>156,816</u>	<u>61.0</u>	<u>149,193</u>	<u>55.2</u>	<u>55.7</u>
OVERALL AVERAGE		147,347	51.9	121,605	58.0	120,698	56.1	55.3

*Bushels per acre corrected to 13% moisture. Bold entries indicate highest yield for each variety in each row width.

Summary: Our ten year average shows only 1.5 bushels per acre difference between all row spacings, with a slightly higher average yield in 15" rows.

Each row spacing has produced the highest yield in a given year. The only correlation we have found that relates to which row spacing does best in a given year is heat. More specifically, the month that has the most days above 90 degrees has determined which row spacing produced the most in that year. When June had the most number of days above 90 degrees, 7.5" rows produced the most, July, 15" rows, and August, 30" rows came to the top. This pattern occurred in all but one of the past ten years.

The one pattern we noticed was that BECK 274NRR trended towards higher yields at the highest populations, while BECK 342NRR trended towards higher yields at the moderate to lower populations.

TEN YEAR AVERAGE* (Bu./A)			
	<u>7.5"</u>	<u>15"</u>	<u>30"</u>
1997	61.0	62.3	58.2
1998	63.6	62.8	64.0
1999	47.3	44.7	48.5
2001	66.7	64.3	59.5
2002	62.4	65.8	60.9
2003	54.4	53.5	54.3
2004	65.8	72.5	68.0
2005	61.9	63.2	65.4
2006	65.2	66.7	65.4
2007**	<u>51.1</u>	<u>57.9</u>	<u>58.2</u>
Average	59.9	61.4	60.3

*Different varieties used each year.

Bold entries indicate highest yield each year.

**Yields used in 2007 are for the normal population for the row width, not the average of the three populations. (e.g. 130,000 for 30" rows)