

# Needham Ag Technologies, LLC.

# 2010 Seed Spacing Research

Crop Soybean  
 Tillage Practice Conventional  
 Planting Date Friday May 14th 2010  
 Counts Taken Monday May 17th 2010  
 Target Seed Population 160,000 seeds per acre  
 Seed Size 3200 seed per pound

Drill Type JD 1850  
 Drill Width 42.5'  
 Row Spacing 7.5"  
 Seeding Speed 5.8 mph  
 Fan Speed 3200 RPM  
 Location Calhoun, KY

## Needham Seed Brake Installed

*(seed spacing measured in inches)*

Rep 1	Rep 2	Rep 3	Rep 4
9	1	10	2
4	2	10	5
3	7	1	6
2	11	4	4
10	6	1	1
4	7	4	6
4	8	1	1
10	2	1	2
11	6	8	1
5	2	2	16
4	4	6	2
1	11	1	4
11	1	1	2
4	14	10	5
2	3	10	10
1	8	1	13
11	15	5	13
16	7	4	2
1	4	3	1
11	2	2	1
1	7	1	4
9	4	4	4
7	6	10	6
6	6	1	5
10	7	4	10

## No Seed Brake Installed

*(seed spacing measured in inches)*

Rep 1	Rep 2	Rep 3	Rep 4
7	2	16	7
1	6	1	5
2	6	1	0
7	2	21	12
2	4	0	1
4	2	1	1
21	2	1	1
1	2	3	23
1	6	2	1
0	0	2	13
1	10	16	1
11	4	2	3
22	2	7	4
2	18	4	3
1	1	4	1
1	2	2	19
19	2	12	6
1	1	9	2
1	15	4	1
1	1	1	6
4	1	4	9
6	1	14	6
15	1	2	12
6	21	7	1
6	2	2	2

	Rep 1	Rep 2	Rep 3	Rep 4	Average
Standard Deviation	4.22	3.78	3.48	4.24	3.93
Average Spacing	6.28	6.04	4.20	5.04	5.39
C of V	67.17	62.59	82.76	84.08	74.15

	Rep 1	Rep 2	Rep 3	Rep 4	Average
Standard Deviation	6.69	5.60	5.82	6.04	6.04
Average Spacing	5.72	4.56	5.52	5.6	5.35
C of V	116.90	122.77	105.39	107.88	113.23

The **Green** boxes (above) indicate the average standard deviation between all 4 replications. Standard deviation is a widely used measure of variability, with the lower numbers being the best.  
 The **Red** boxes (above) indicate the average seed spacing gathered from all replications. These are similar as expected, because the total seed population was similar from each secondary seed tube.  
 The **Blue** boxes (above) indicate the coefficient of variation between all replications. This is a useful method which illustrates a normalized measure of dispersion, with the lower numbers being better.