BECK'S Nitrogen Rate Study - 2004

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.

Location: Field K (NE)
Planted: April 14, 2004
Harvested: September 28, 2004
Rows: Two 30" rows
Population: 27,818 seeds/A.

Previous Crop: Soybeans
Tillage: V-Rip / S-tine
Herbicide: PPI: 2.3 qts. Bicep II Magnum / 1 qt. Princep
Post: 3 oz. Callisto / 1 qt. Aatrex
Insecticide: Aztec

Purpose: Nitrogen rate recommendations have been debated and researched for several years. Recent price increases in nitrogen fertilizers have caused many farmers to consider reducing nitrogen rates. This study compares 100#, 140# and 180# of total nitrogen applied.

Brand-Hybrid	Harvested Population	Test Weight	Percent Broken Stalks	Percent Moisture	Average Yield** Bu./A.	Bu./A.* + or - Plot Average		
						100#N	140# N	180# N
BECK 5322	28,167	55.7	0.0	15.6	206.6	-16.7	-5.5	+22.3
BECK EX 1362	25,667	55.0	0.0	16.2	206.2	-31.5	+7.9	+23.6
BECK 5012	28,167	56.3	0.0	15.7	201.6	-7.8	-20.2	+28.0
BECK 5538	27,500	56.0	0.0	16.3	200.7	-30.2	+17.6	+12.6
BECK 5166	27,167	55.7	0.0	15.0	199.2	-7.7	+0.8	+6.9
BECK EX 0368	25,833	55.8	0.0	15.9	197.3	-25.2	+19.4	+5.8
BECK 5366	26,667	55.2	0.0	15.7	196.7	-20.0	-2.2	+22.1
BECK 5597	26,667	55.8	0.0	16.1	195.5	-2.4	-18.1	+20.5
BECK 6197	26,833	53.8	0.0	19.0	194.5	-34.8	-5.6	+40.4
BECK 7997CBCL	27,333	54.0	0.0	19.3	191.7	-30.7	+4.3	+26.5
BECK 7538Bt 1	26,667	54.8	0.0	18.7	191.7	-30.5	-0.2	+30.7
BECK EX 2411	27,833	56.3	0.0	14.5	189.6	-21.4	+2.0	+19.3
BECK 6102ND	26,667	55.5	0.0	16.9	188.8	-15.0	+5.4	+9.6
BECK 5959	26,000	54.7	0.0	18.2	188.1	-26.7	+0.4	+26.4
BECK 5737CL	26,500	56.2	0.0	16.0	183.4	-32.0	+3.1	+28.9
BECK 5129	29,500	56.0	0.0	15.5	179.6	-2.8	-15.4	+18.2
AVERAGE	27,073	55.4	0.0	16.5	194.5			

Nitrogen Rate	Averages of all hybrids at each Nitrogen rate.					Four Year Average
100 lbs. N.	27,156	55.3	0.0	16.6	173.5	173.0
140 lbs. N.	26,781	55.3	0.0	16.7	194.0	183.1
180 lbs. N.	27,281	55.7	0.0	16.4	215.8	195.8

*Bushels per acre corrected to 15% moisture.
**Average yield of all three nitrogen rates.

Summary: This year's plot produced the largest yield difference between the three nitrogen rates that we have seen in the four-year history of this test (22.8 Bu./A.). Lack of excessive rains that cause de-nitrification allowed the differences in rates to be more fully expressed. Hybrids like BECK 5012, 5166, 5597 and 5129 all suffered less from the low (100 lb.) nitrogen rate. We have seen this characteristic expressed in other tests with similar hybrids that tassel early and/or exhibit good stress tolerance. The fuller season hybrids (BECK 6197, 7997CBCL, 7538Bt 1, 5959 and 5737CL) showed greater gains with the 180 lb. nitrogen rate as they have done in the past tests.