

# Evaluation of Soybean Varieties Resistant to Soybean Cyst Nematode in Iowa—2008



Aerial view of SCN-resistant soybean variety trial in central Iowa

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**... and justice for all**

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# Evaluation of Soybean Varieties Resistant to Soybean Cyst Nematode in Iowa in 2008

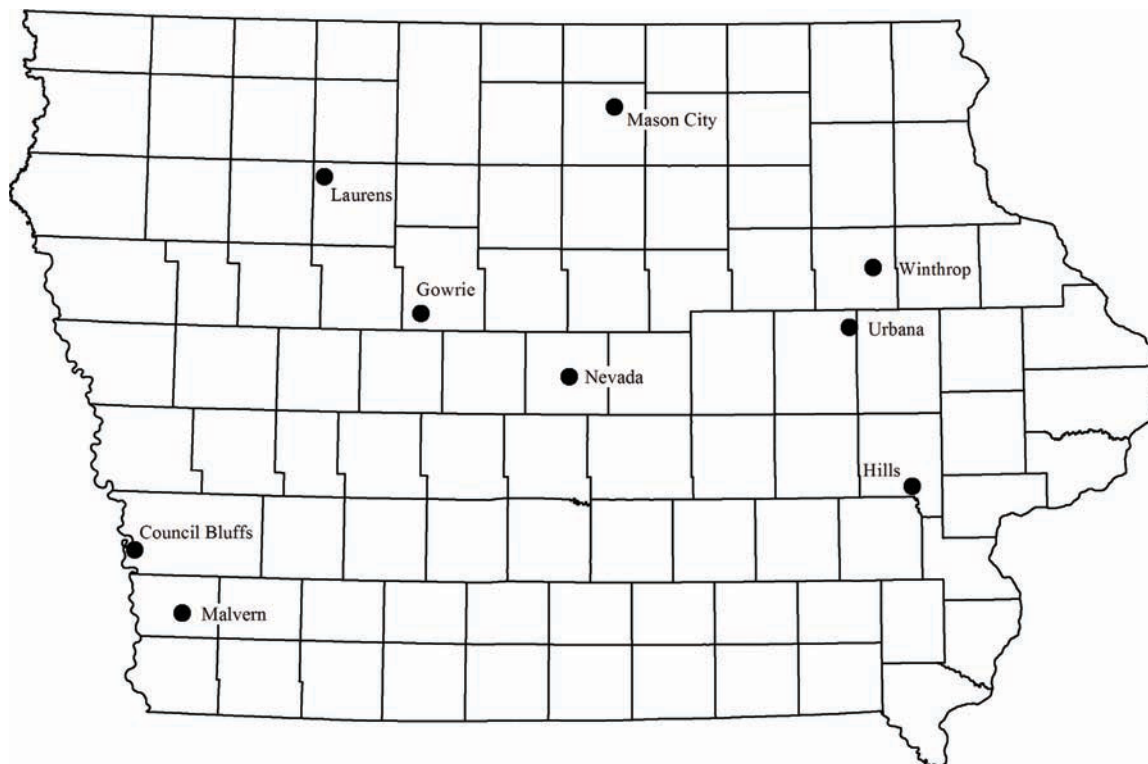
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Department of Plant Pathology

## Introduction

Use of resistant soybean varieties is a very effective strategy for managing soybean cyst nematode (SCN), and numerous SCN-resistant soybean varieties are available for Iowa soybean growers. Each year, public and private SCN-resistant soybean varieties are evaluated in SCN-infested fields throughout Iowa by Iowa State University personnel. The research described in this report was performed to assess the agronomic performance of maturity group (MG) I, II, and III SCN-resistant soybean varieties and to determine the effects of the varieties on SCN numbers or population densities.

## Materials and Methods

In the northern Iowa district, 45 Roundup Ready<sup>®</sup>, SCN-resistant soybean varieties were evaluated in SCN-infested fields near Laurens (northwest Iowa), Mason City (north central Iowa), and Winthrop (northeast Iowa). In the central Iowa district, 34 Roundup Ready<sup>®</sup>, SCN-resistant soybean varieties were evaluated in SCN-infested fields near Gowrie (west central Iowa), Nevada (central Iowa), and Urbana (east central Iowa). In the southern Iowa district, 30 Roundup Ready<sup>®</sup>, SCN-resistant soybean varieties were evaluated in SCN-infested fields near Council Bluffs (southwest Iowa), Malvern (southwest Iowa), and Hills (southeast Iowa).



At all locations, four SCN-susceptible varieties also were planted in the experiments. Plots were four 17-foot-long rows spaced 30 inches apart and were planted at 10 seeds per foot, with four replications per variety. Seed companies were encouraged to treat their seed with fungicide and insecticide. Seeds that were received untreated were treated with CruiserMaxx by Iowa State University personnel, unless the

seed company preferred that their seed be planted without a seed treatment. A complete treatment list is included at the back of the report. Preplant herbicide was applied to each location. Roundup® herbicide was applied for post-emergence weed control. The Laurens, Winthrop, Council Bluffs, and Malvern locations were planted using “no-till” or “minimal till” methods; at all other locations, the seed bed was tilled prior to planting.

Plant emergence (number of plants per foot) was assessed in each plot 35 to 40 days after planting. All plots were end trimmed to a length of 14 feet during the first three weeks of September. Maturity notes were taken at one location in each district (northern, central, and southern), but for reference purposes are listed in the tables for all three locations in the same district. Maturity was recorded as the number of days after August 31<sup>st</sup> that a variety was considered mature. A variety was considered mature when 95 percent of the pods had turned brown. For all locations, just prior to harvest, average plant height and lodging (1=all plants fully erect, 5=all plants flat) were assessed in each plot. For each location, the center two rows of each four-row plot were harvested with a plot combine, total seed weight per plot and seed moisture were determined, and total plot seed weights subsequently were converted to bushels per acre. Resistant varieties and susceptible check varieties are grouped separately and are listed in the report in order of descending yield.

At the beginning of the growing season, plots were sampled for the presence of SCN. Soil samples, consisting of ten 1-inch-diameter, 6- to 8-inch-deep soil cores, were collected from the center 14 feet of the center two rows of each plot immediately after planting. SCN cysts were extracted from each soil sample, and SCN eggs were extracted from the cysts and counted. SCN egg population densities also were determined for each plot at the end of the growing season in an identical manner.

Because of the consistent relationship between soil pH and SCN population densities, all varieties also were tested for tolerance to iron deficiency chlorosis (IDC). Each variety was planted in a hill plot consisting of five seeds per hill, with two replications per variety, at two high pH field locations. Locations were chosen by identifying IDC symptoms on soybeans growing in local farmers’ fields at the end of June. Both fields were located near Ames (central Iowa). Prior to planting the experiments, the soybeans growing at each location were removed. Both tests for IDC tolerance were planted on July 10<sup>th</sup>. Notes were taken for IDC symptoms at each location approximately four weeks after planting and again at five weeks after planting. Varieties were rated on a scale of “1” to “5” with a “1” indicating no symptoms of IDC present and a “5” indicating plant death due to IDC. The scores from each location then were averaged together and an overall rating was assigned to each variety. One variety highly resistant to IDC and one variety highly susceptible to IDC also were included in the experiments as checks. The highly resistant variety scored an average of 1.1 and the highly susceptible variety scored an average of 3.0. The scores from these IDC field tests are listed in each location table in the report for reference.

#### Location-specific details.

Location	Initial SCN Population (eggs / 100 cc soil)	HG Type <sup>1</sup>	Planting Date	Harvest Date
Laurens (NW)	1,640	2.5.7	May 1	October 20
Mason City (NC)	4,336	7	May 9	October 3
Winthrop (NE)	748	7	May 16	October 1
Gowrie (WC)	2,434	7	May 14	October 2
Nevada (C)	2,098	1.2.5.6.7	May 13	October 6
Urbana (EC)	3,238	7	May 22	October 13
Council Bluffs (SW)	2,966	2.5.7	May 19	October 27
Malvern (SW)	5,542	7	May 19	October 18
Hills (SE)	688	2.5.7	May 6	October 10

<sup>1</sup>In the SCN type test results, the number “0” indicates < 10% reproduction on all of the HG Type indicator lines, the number “1” indicates ≥ 10% reproduction on Peking, “2” indicates ≥ 10% reproduction on PI 88788, “5” indicates ≥ 10% reproduction on PI 209332, the number “6” indicates ≥ 10% reproduction on PI 89772 and “7” indicates ≥ 10% reproduction on PI 548316.

## Data Presentation

In the report, soybean yield and SCN reproductive trends are displayed graphically in addition to the traditional tables. In the graphs, yield is shown by the bar lengths and corresponds to the scale at the bottom of the graph. SCN reproduction is shown by the color and pattern of the bars, and is arrived at using arbitrary threshold values of a calculated reproductive factor (RF). RF is calculated by dividing the average final SCN population by the average initial SCN population for each plot. What this means is that if a variety has an RF value of 5.0, the SCN population for those plots was 5 times greater at harvest than it was at planting. Conversely, an RF value of 0.5 means the SCN population for those plots at harvest was  $\frac{1}{2}$  the population at planting. It is important to remember that this number is location specific and may be quite different under different environmental conditions, soil types, and nematode populations. Arbitrary values were used in recognition of the variability of nematode counts from soil. Our thresholds were: RF 0 – RF 0.7 (green; SCN numbers decreased), RF 0.8 – RF 1.2 (yellow; no change from spring to fall), RF > 1.2 (red; SCN numbers increased).

## Summary

The results of the experiments convincingly illustrate the benefits of utilizing SCN-resistant soybean varieties for management of this important soybean pest. Throughout the experiments, many of the soybean varieties with SCN resistance had greater yields than susceptible varieties, although some resistant varieties had greater yields than others. At most locations, end-of-season SCN population densities were significantly greater in plots where susceptible varieties were grown relative to plots planted with resistant varieties. Nematode control is an extremely important aspect of growing SCN-resistant soybean varieties that must be considered when selecting soybean varieties. **Growing soybean varieties in SCN-infested fields in an attempt to maximize soybean yields in the short term without any consideration of the effect of the varieties on SCN population densities will seriously reduce the long-term soybean productivity of the land.**

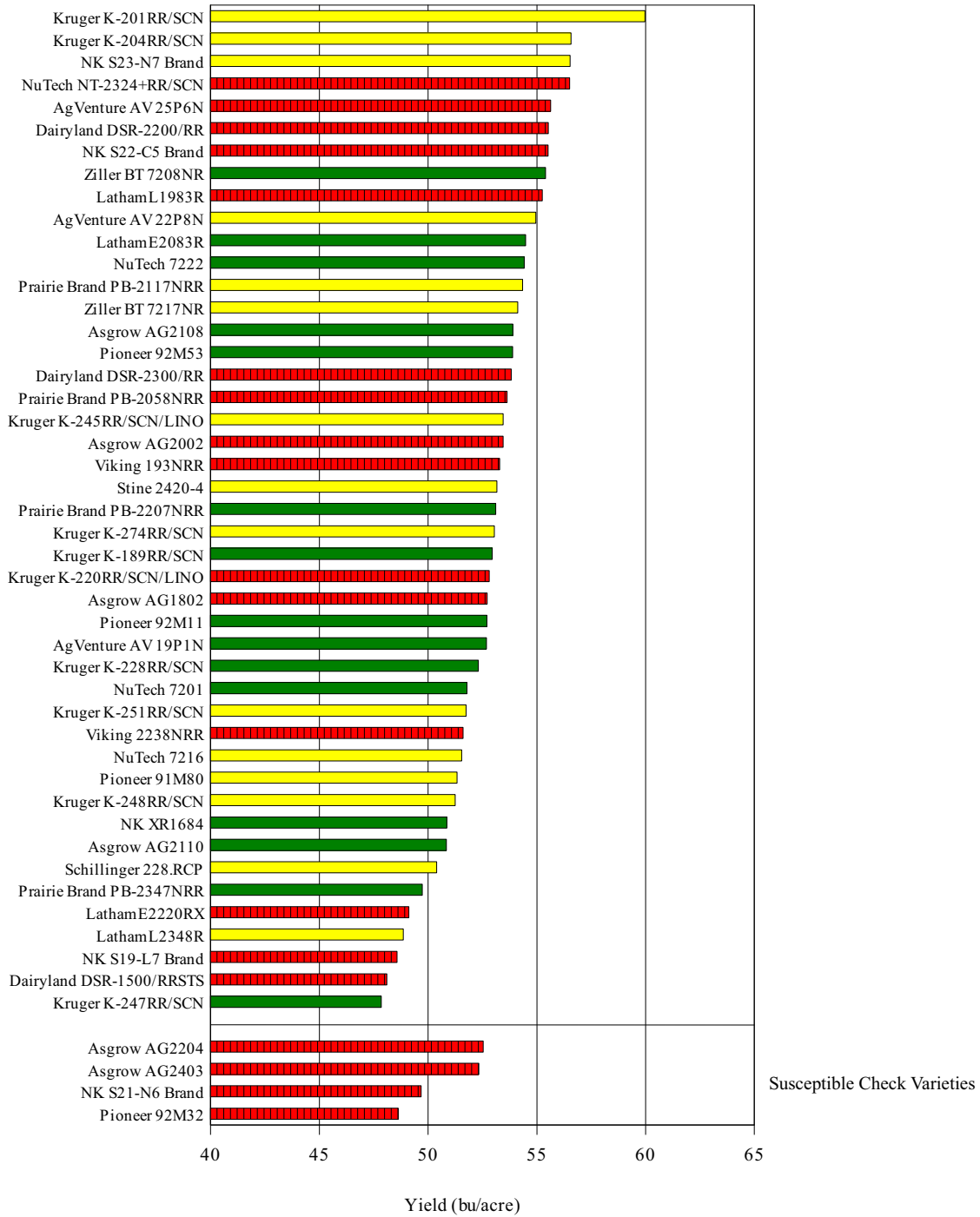
The results of these experiments illustrate that SCN-resistant varieties can suppress SCN reproduction and provide increased soybean yields relative to using susceptible varieties. Currently, there are three main genetic sources for SCN resistance genes in commercial soybean varieties, namely PI 88788, Peking, and PI 437654 (also known as Hartwig and PUSCN14 resistance, the latter also known as CystX<sup>®</sup> resistance). Each of these sources of SCN resistance contains several genes that confer resistance to the nematode. Consequently, soybean varieties developed from the various sources of resistance may not all contain the same genes in the same combinations. All of these sources of SCN resistance allow limited reproduction of only a few soybean cyst nematodes. Resistant varieties must be used in an integrated management program, along with the use of nonhost crops and scouting for early detection of SCN, to maximize yields and minimize reproduction of the pest on a long-term basis.

The data presented in this report are from a limited number of locations and should be used only as a beginning point for developing a SCN management program for any specific field. Performance of individual SCN-resistant soybean varieties in SCN-infested fields will vary among locations and years. **Growers are encouraged to evaluate several SCN-resistant soybean varieties at their own locations to determine the best varieties for their local conditions.**

## Acknowledgments

This research was supported, in part, by soybean checkoff funds administered through the Iowa Soybean Association. Additionally, the individual seed companies were assessed a fee to enter varieties into these experiments. Appreciation is expressed to the staff of the Iowa State University Southeast Research and Demonstration Farm, especially Kevin VanDee. Gratitude also is expressed to Joe Pohlman of Laurens, Mike Brown of Mason City, Dennis Lindsay of Masonville, John Nelson of Gowrie, Steve Henry of Nevada, Ed McKinley of Urbana, Larry Anderson of Council Bluffs, Ryan Goy of Malvern, and Gary Eden of Hills for use of land for some of the experiments.

Figure 1. Laurens (NW Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 1,640 eggs / 100 cc soil  
 HG Type 2.5.7 (37% on PI 88788).

Table 1. Laurens (NW Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Kruger	K-201RR/SCN	2.0	PI 88788	2.2	23	9.2	32.0	1.8	60.0	1	825	0.8
Kruger	K-204RR/SCN	2.0	PI 88788	2.1	24	8.3	31.5	1.9	56.6	2	1,000	1.0
NK	S23-N7 Brand	2.3	PI 88788	2.9	25	9.1	31.3	2.3	56.5	3	1,475	0.8
NuTech	NT-2324+RR/SCN	2.3	PI 88788	2.8	26	8.7	28.5	1.5	56.5	3	650	1.4
AgVenture	AV 25P6N	2.5	PI 88788	1.7	27	8.5	30.8	2.0	55.6	5	950	1.4
Dairyland	DSR-2200/RR	2.2	NG <sup>4</sup>	2.4	29	8.2	32.8	1.9	55.5	6	3,100	2.1
NK	S22-C5 Brand	2.2	PI 88788	1.6	23	7.0	26.3	1.5	55.5	6	2,200	1.3
Ziller	BT 7208NR	2.0	PI 88788	2.3	23	7.3	29.3	1.6	55.4	8	775	0.5
Latham	L1983R	1.9	PI 88788	2.1	23	10.8	30.5	1.6	55.2	9	1,575	1.6
AgVenture	AV 22P8N	2.2	PI 88788	2.1	25	7.1	29.8	1.5	55.0	10	1,050	0.9
Latham	E2083R	2.0	PI 88788	2.4	25	7.8	29.5	1.8	54.5	11	450	0.6
NuTech	7222	2.2	PI 88788	2.8	25	7.1	31.0	1.5	54.4	12	875	0.7
Prairie Brand	PB-2117NRR	2.1	PI 88788	1.9	23	7.8	29.0	1.4	54.4	12	1,325	1.1
Ziller	BT 7217NR	2.1	PI 88788	2.8	23	8.2	29.3	1.8	54.1	14	875	0.9
Asgrow	AG2108	2.1	PI 88788	2.3	24	8.8	30.5	1.5	53.9	15	925	0.6
Pioneer	92M53	2.5	Peking	2.3	28	7.8	34.3	2.3	53.9	15	225	0.3
Dairyland	DSR-2300/RR	2.3	NG <sup>4</sup>	1.6	27	8.4	33.0	1.9	53.8	17	3,875	3.1
Prairie Brand	PB-2058NRR	2.0	PI 88788	2.5	24	9.2	28.5	1.5	53.6	18	1,300	1.4
Kruger	K-245RR/SCN/LINO	2.4	PI 88788	2.8	27	7.7	30.8	1.6	53.5	19	1,900	1.2
Asgrow	AG2002	2.0	PI 88788	2.3	23	8.4	31.5	1.5	53.4	20	2,350	3.1
Viking	193NRR	1.9	Hartwig / PI 88788	2.4	22	8.2	32.0	1.9	53.3	21	2,000	1.7
Stine	2420-4	2.2	PI 88788	3.6	25	7.3	29.0	1.5	53.2	22	1,475	1.0
Prairie Brand	PB-2207NRR	2.2	PI 88788	2.6	25	7.6	31.3	1.8	53.1	23	750	0.7
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	28	7.2	34.0	2.0	53.0	24	900	0.9
Kruger	K-189RR/SCN	1.8	PI 88788	2.9	22	7.5	27.5	1.5	52.9	25	1,200	0.7
Kruger	K-220RR/SCN/LINO	2.2	PI 88788	1.4	27	8.2	29.5	1.8	52.8	26	1,325	2.3
Asgrow	AG1802	1.8	PI 88788	1.6	21	7.2	27.3	1.5	52.7	27	1,325	2.1
Pioneer	92M11	2.1	Peking	2.4	23	7.8	33.5	2.8	52.7	27	325	0.5
AgVenture	AV 19P1N	1.9	PI 88788	2.3	29	9.2	36.3	1.5	52.7	27	750	0.5
Kruger	K-228RR/SCN	2.2	PI 88788	2.3	25	8.3	30.3	1.5	52.3	31	875	0.6
NuTech	7201	2.0	PI 88788	2.1	24	7.3	29.5	1.8	51.8	33	775	0.7
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	28	7.9	28.8	1.8	51.7	34	1,675	1.0
Viking	2238NRR	2.2	PI 88788	1.5	23	8.5	28.8	1.8	51.6	35	825	1.3
NuTech	7216	2.1	PI 88788	3.1	24	7.2	28.0	1.5	51.5	36	1,600	0.9
Pioneer	91M80	1.8	PI 88788	2.1	23	7.8	31.5	1.6	51.3	37	700	0.8
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	28	6.9	31.8	1.8	51.2	38	925	0.9
NK	XR1684	1.6	Peking	2.1	20	8.5	24.8	1.5	50.9	39	325	0.4
Asgrow	AG2110	2.1	Peking	1.9	23	9.2	33.0	2.3	50.8	40	250	0.3
Schillinger	228.RCP	2.2	PI 88788	2.2	24	8.8	31.0	1.8	50.4	41	550	0.9
Prairie Brand	PB-2347NRR	2.2	PI 88788	1.8	24	7.2	28.5	1.5	49.7	42	575	0.6
Latham	E2220RX	2.2	CystX	3.3	26	7.5	30.5	1.6	49.1	44	3,150	3.6
Latham	L2348R	2.3	PI 88788	2.1	24	7.7	30.3	1.8	48.9	45	1,350	0.8
NK	S19-L7 Brand	1.9	PI 88788	2.3	24	8.6	28.0	1.4	48.6	46	1,350	1.3
Dairyland	DSR-1500/RRSTS	1.5	NG <sup>4</sup>	2.1	22	7.3	26.3	1.6	48.1	48	2,450	2.1
Kruger	K-247RR/SCN	2.4	Peking	2.7	26	7.9	32.3	2.0	47.8	49	675	0.3
Average		2.1	-	2.3	25	8.0	30.3	1.7	53.0	-	1,240	1.1
LSD <sup>3</sup> (P = 0.05)		-	-	-	-	NS	2.6	0.4	5.0	-	1,303	1.7
LSD <sup>3</sup> (P = 0.10)		-	-	-	-	NS	2.2	0.3	4.2	-	1,091	1.4
<i>Asgrow</i>	<i>AG2204</i>	2.2	<i>None</i>	2.3	26	6.4	28.0	1.8	52.5	30	3,625	3.5
<i>Asgrow</i>	<i>AG2403</i>	2.4	<i>None</i>	2.0	26	5.9	27.0	1.6	52.3	31	2,900	1.3
<i>NK</i>	<i>S21-N6 Brand</i>	2.1	<i>None</i>	2.8	25	7.9	28.0	2.0	49.7	42	3,300	1.8
<i>Pioneer</i>	<i>92M32</i>	2.3	<i>None</i>	2.3	24	8.1	27.0	1.4	48.6	46	2,200	1.4
Average		2.3	-	2.3	25	7.1	27.5	1.7	50.8	-	3,006	2.0

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

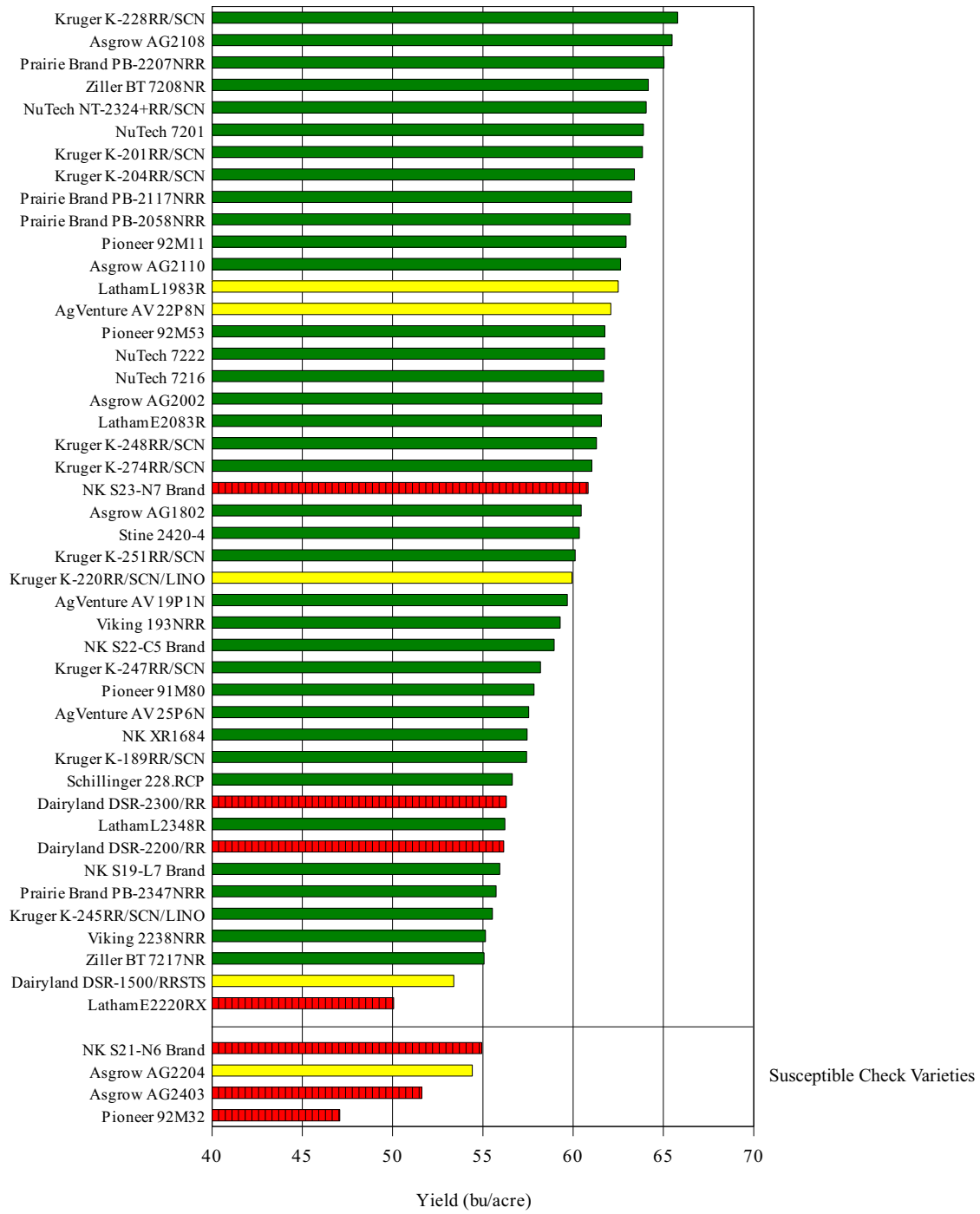
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 1,640 eggs per 100 cc soil; HG Type 2.5.7 (37% on PI 88788).

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 2. Mason City (NC Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 4,336 eggs / 100 cc soil  
 HG Type 7.



Table 2. Mason City (NC Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Kruger	K-228RR/SCN	2.2	PI 88788	2.3	25	8.8	30.3	1.4	65.8	1	675	0.3
Asgrow	AG2108	2.1	PI 88788	2.3	24	8.2	31.3	1.4	65.5	2	400	0.2
Prairie Brand	PB-2207NRR	2.2	PI 88788	2.6	25	7.3	30.8	1.5	65.0	3	1,075	0.3
Ziller	BT 7208NR	2.0	PI 88788	2.3	23	9.6	28.5	1.4	64.2	4	625	0.1
NuTech	NT-2324+RR/SCN	2.3	PI 88788	2.8	26	9.3	28.0	1.5	64.0	5	1,025	0.2
NuTech	7201	2.0	PI 88788	2.1	24	8.7	27.8	1.5	63.9	6	850	0.2
Kruger	K-201RR/SCN	2.0	PI 88788	2.2	23	10.4	29.5	1.3	63.8	7	1,050	0.7
Kruger	K-204RR/SCN	2.0	PI 88788	2.1	24	8.9	28.5	1.5	63.4	8	1,825	0.3
Prairie Brand	PB-2117NRR	2.1	PI 88788	1.9	23	8.2	27.8	1.0	63.2	9	1,125	0.3
Prairie Brand	PB-2058NRR	2.0	PI 88788	2.5	24	8.9	28.3	1.4	63.2	9	1,000	0.4
Pioneer	92M11	2.1	Peking	2.4	23	8.2	32.8	2.1	62.9	11	825	0.2
Asgrow	AG2110	2.1	Peking	1.9	23	9.0	33.3	1.6	62.6	12	725	0.2
Latham	L1983R	1.9	PI 88788	2.1	23	9.3	28.5	1.1	62.5	13	1,275	1.2
AgVenture	AV 22P8N	2.2	PI 88788	2.1	25	7.6	30.8	1.5	62.1	14	1,200	0.8
Pioneer	92M53	2.5	Peking	2.3	28	7.9	35.5	2.0	61.8	15	675	0.2
NuTech	7222	2.2	PI 88788	2.8	25	8.3	29.3	1.5	61.7	16	1,700	0.3
NuTech	7216	2.1	PI 88788	3.1	24	7.3	28.5	1.3	61.7	16	1,200	0.3
Asgrow	AG2002	2.0	PI 88788	2.3	23	8.3	29.8	1.4	61.6	18	1,125	0.4
Latham	E2083R	2.0	PI 88788	2.4	25	8.8	27.8	1.5	61.6	18	900	0.3
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	28	7.3	31.3	1.5	61.3	20	450	0.2
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	28	7.8	34.8	1.8	61.0	21	975	0.3
NK	S23-N7 Brand	2.3	PI 88788	2.9	25	8.2	30.0	1.5	60.8	22	2,450	2.2
Asgrow	AG1802	1.8	PI 88788	1.6	21	7.7	26.3	1.4	60.4	23	1,800	0.3
Stine	2420-4	2.2	PI 88788	3.6	25	9.2	29.8	1.4	60.3	24	1,575	0.3
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	28	7.6	29.0	1.6	60.1	25	1,000	0.4
Kruger	K-220RR/SCN/LINO	2.2	PI 88788	1.4	27	8.8	30.3	1.5	59.9	26	825	1.0
AgVenture	AV 19P1N	1.9	PI 88788	2.3	29	6.9	33.5	1.3	59.7	27	1,550	0.7
Viking	193NRR	1.9	Hartwig / PI 88788	2.4	22	7.8	31.8	1.5	59.3	28	625	0.2
NK	S22-C5 Brand	2.2	PI 88788	1.6	23	8.3	24.0	1.4	58.9	39	2,425	0.5
Kruger	K-247RR/SCN	2.4	Peking	2.7	26	7.4	33.0	1.6	58.2	30	825	0.2
Pioneer	91M80	1.8	PI 88788	2.1	23	7.3	32.8	1.3	57.8	31	925	0.3
AgVenture	AV 25P6N	2.5	PI 88788	1.7	27	8.8	28.3	1.6	57.5	32	1,750	0.4
NK	XR1684	1.6	Peking	2.1	20	9.1	25.8	1.1	57.5	32	725	0.3
Kruger	K-189RR/SCN	1.8	PI 88788	2.9	22	7.5	28.0	1.0	57.4	34	875	0.2
Schillinger	228.RCP	2.2	PI 88788	2.2	24	7.8	27.3	1.5	56.6	35	1,100	0.4
Dairyland	DSR-2300/RR	2.3	NG <sup>4</sup>	1.6	27	7.8	32.0	1.5	56.3	36	4,400	1.3
Latham	L2348R	2.3	PI 88788	2.1	24	6.6	28.0	1.5	56.2	37	900	0.3
Dairyland	DSR-2200/RR	2.2	NG <sup>4</sup>	2.4	29	7.9	32.3	1.8	56.2	37	3,125	1.5
NK	S19-L7 Brand	1.9	PI 88788	2.3	24	8.3	28.5	1.3	55.9	39	1,550	0.4
Prairie Brand	PB-2347NRR	2.2	PI 88788	1.8	24	7.8	28.0	1.4	55.7	40	1,025	0.5
Kruger	K-245RR/SCN/LINO	2.4	PI 88788	2.8	27	7.0	30.5	1.5	55.5	41	725	0.2
Viking	2238NRR	2.2	PI 88788	1.5	23	8.2	27.8	1.1	55.1	42	675	0.3
Ziller	BT 7217NR	2.1	PI 88788	2.8	23	7.7	28.5	1.5	55.1	42	675	0.1
Dairyland	DSR-1500/RRSTS	1.5	NG <sup>4</sup>	2.1	22	5.5	28.0	1.5	53.4	46	2,875	1.2
Latham	E2220RX	2.2	CystX	3.3	26	7.5	29.3	1.5	50.1	48	4,625	1.6
Average		2.1	-	2.3	25	8.1	29.7	1.4	59.9	-	1,327	0.5
LSD <sup>3</sup> (P = 0.05)		-	-	-	-	1.5	1.6	0.3	3.8	-	1,217	0.9
LSD <sup>3</sup> (P = 0.10)		-	-	-	-	1.3	1.3	0.2	3.2	-	1,019	0.8
NK	S21-N6 Brand	2.1	None	2.8	25	7.7	27.5	1.4	54.9	44	3,425	1.8
Asgrow	AG2204	2.2	None	2.3	26	9.3	27.5	1.6	54.4	45	3,350	1.0
Asgrow	AG2403	2.4	None	2.0	26	8.6	26.3	1.4	51.6	47	4,750	1.4
Pioneer	92M32	2.3	None	2.3	24	8.3	26.0	1.0	47.1	49	2,100	1.4
Average		2.3	---	2.3	25	8.5	26.8	1.3	52.0	-	3,406	1.4

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

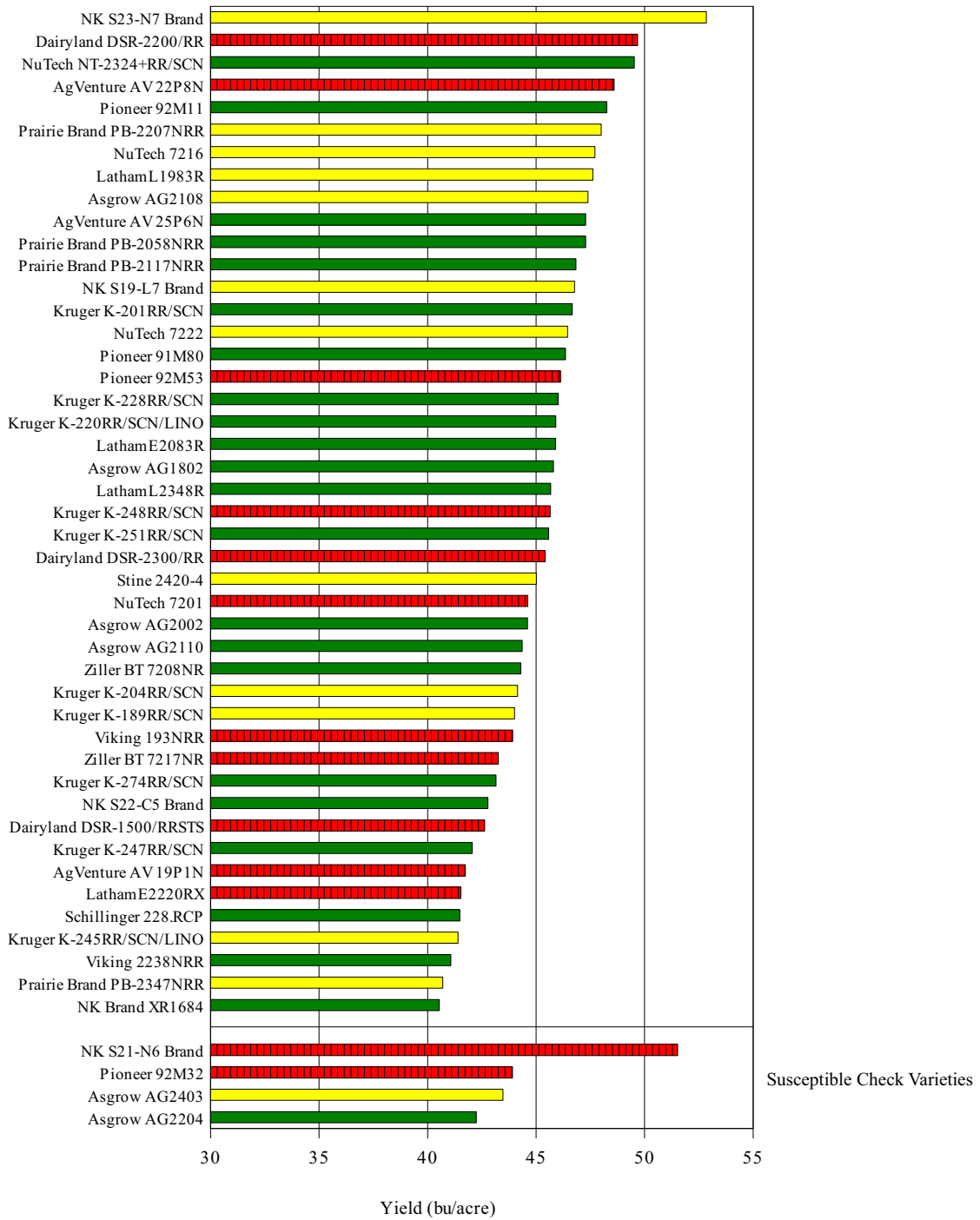
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 4,336 eggs per 100 cc soil; HG Type 7.

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 3. Winthrop (NE Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 748 eggs / 100 cc soil  
 HG Type 7.

Table 3. Winthrop (NE Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
NK	S23-N7 Brand	2.3	PI 88788	2.9	25	9.3	30.5	1.3	52.8	1	550	0.8
Dairyland	DSR-2200/RR	2.2	NG <sup>4</sup>	2.4	29	7.5	32.8	1.6	49.7	3	525	4.2
NuTech	NT-2324+RR/SCN	2.3	PI 88788	2.8	26	8.4	29.0	1.3	49.5	4	150	0.5
AgVenture	AV 22P8N	2.2	PI 88788	2.1	25	8.8	32.0	1.5	48.6	5	325	2.3
Pioneer	92M11	2.1	Peking	2.4	23	8.1	32.8	1.8	48.3	6	25	0.3
Prairie Brand	PB-2207NRR	2.2	PI 88788	2.6	25	7.8	31.8	1.5	48.0	7	400	1.0
NuTech	7216	2.1	PI 88788	3.1	24	7.8	26.5	1.3	47.7	8	175	0.9
Latham	L1983R	1.9	PI 88788	2.1	23	8.2	28.8	1.4	47.6	9	425	1.2
Asgrow	AG2108	2.1	PI 88788	2.3	24	9.6	29.8	1.3	47.4	10	175	0.8
AgVenture	AV 25P6N	2.5	PI 88788	1.7	27	9.3	29.5	1.4	47.3	11	100	0.6
Prairie Brand	PB-2058NRR	2.0	PI 88788	2.5	24	7.8	28.8	1.5	47.3	11	200	0.6
Prairie Brand	PB-2117NRR	2.1	PI 88788	1.9	23	8.3	28.0	1.4	46.8	13	75	0.5
NK	S19-L7 Brand	1.9	PI 88788	2.3	24	8.7	28.0	1.5	46.8	13	225	1.2
Kruger	K-201RR/SCN	2.0	PI 88788	2.2	23	8.2	32.3	1.5	46.7	15	150	0.5
NuTech	7222	2.2	PI 88788	2.8	25	8.3	30.0	1.4	46.5	16	175	1.1
Pioneer	91M80	1.8	PI 88788	2.1	23	8.6	31.5	1.3	46.4	17	125	0.7
Pioneer	92M53	2.5	Peking	2.3	28	8.7	34.5	1.9	46.1	18	175	1.8
Kruger	K-228RR/SCN	2.2	PI 88788	2.3	25	9.4	31.0	1.5	46.0	19	100	0.5
Kruger	K-220RR/SCN/LINO	2.2	PI 88788	1.4	27	9.7	30.5	1.5	45.9	20	100	0.5
Latham	E2083R	2.0	PI 88788	2.4	25	8.3	27.8	1.3	45.9	20	225	0.4
Asgrow	AG1802	1.8	PI 88788	1.6	21	9.5	28.3	1.3	45.8	22	125	0.7
Latham	L2348R	2.3	PI 88788	2.1	24	7.8	27.8	1.5	45.7	23	150	0.5
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	28	8.3	31.5	1.4	45.6	24	200	1.8
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	28	8.1	29.3	1.5	45.6	24	275	0.4
Dairyland	DSR-2300/RR	2.3	NG <sup>4</sup>	1.6	27	8.6	30.5	1.5	45.4	26	2,425	2.8
Stine	2420-4	2.2	PI 88788	3.6	25	8.5	30.5	1.5	45.0	27	150	0.9
NuTech	7201	2.0	PI 88788	2.1	24	8.1	27.5	1.4	44.6	28	825	1.9
Asgrow	AG2002	2.0	PI 88788	2.3	23	9.0	32.0	1.5	44.6	28	275	0.7
Asgrow	AG2110	2.1	Peking	1.9	23	7.8	29.5	1.4	44.4	30	100	0.6
Ziller	BT 7208NR	2.0	PI 88788	2.3	23	8.2	27.0	1.5	44.3	31	500	0.6
Kruger	K-204RR/SCN	2.0	PI 88788	2.1	24	7.8	29.3	1.4	44.1	32	700	1.1
Kruger	K-189RR/SCN	1.8	PI 88788	2.9	22	7.7	29.0	1.4	44.0	33	175	0.8
Viking	193NRR	1.9	Hartwig / PI 88788	2.4	22	8.4	31.3	1.5	43.9	34	850	2.1
Ziller	BT 7217NR	2.1	PI 88788	2.8	23	7.8	27.5	1.5	43.3	37	400	1.4
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	28	8.7	31.5	1.5	43.1	38	325	0.3
NK	S22-C5 Brand	2.2	PI 88788	1.6	23	6.8	24.3	1.3	42.8	39	275	0.2
Dairyland	DSR-1500/RRSTS	1.5	NG <sup>4</sup>	2.1	22	7.3	27.3	1.5	42.6	40	1,900	9.0
Kruger	K-247RR/SCN	2.4	Peking	2.7	26	8.2	31.0	1.5	42.0	42	150	0.6
AgVenture	AV 19PIN	1.9	PI 88788	2.3	29	8.8	32.8	1.0	41.7	43	950	1.7
Latham	E2220RX	2.2	CystX	3.3	26	6.8	28.5	1.4	41.5	44	1,150	3.6
Schillinger	228.RCP	2.2	PI 88788	2.2	24	8.2	27.5	1.5	41.5	44	400	0.6
Kruger	K-245RR/SCN/LINO	2.4	PI 88788	2.8	27	7.3	30.5	1.3	41.4	46	275	0.9
Viking	2238NRR	2.2	PI 88788	1.5	23	7.4	27.5	1.4	41.1	47	75	0.3
Prairie Brand	PB-2347NRR	2.2	PI 88788	1.8	24	8.3	27.0	1.5	40.7	48	200	1.0
NK	XR1684	1.6	Peking	2.1	20	8.9	24.5	1.1	40.5	49	175	0.6
Average		2.1	-	2.3	25	8.3	29.5	1.4	45.3	-	387	1.2
LSD <sup>3</sup> (P = 0.05)		-	-	-	-	NS	2.2	0.3	4.5	-	1,071	2.9
LSD <sup>3</sup> (P = 0.10)		-	-	-	-	NS	1.9	0.3	3.8	-	896	2.4
NK	S21-N6 Brand	2.1	None	2.8	25	8.3	27.5	1.6	51.5	2	1,575	1.9
Pioneer	92M32	2.3	None	2.3	24	8.8	26.5	1.3	43.9	34	375	2.3
Asgrow	AG2403	2.4	None	2.0	26	9.4	28.0	1.1	43.5	36	950	0.8
Asgrow	AG2204	2.2	None	2.3	26	8.0	27.5	1.4	42.2	41	250	0.7
Average		2.3	-	2.3	25	8.6	27.4	1.3	45.3	-	788	1.4

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

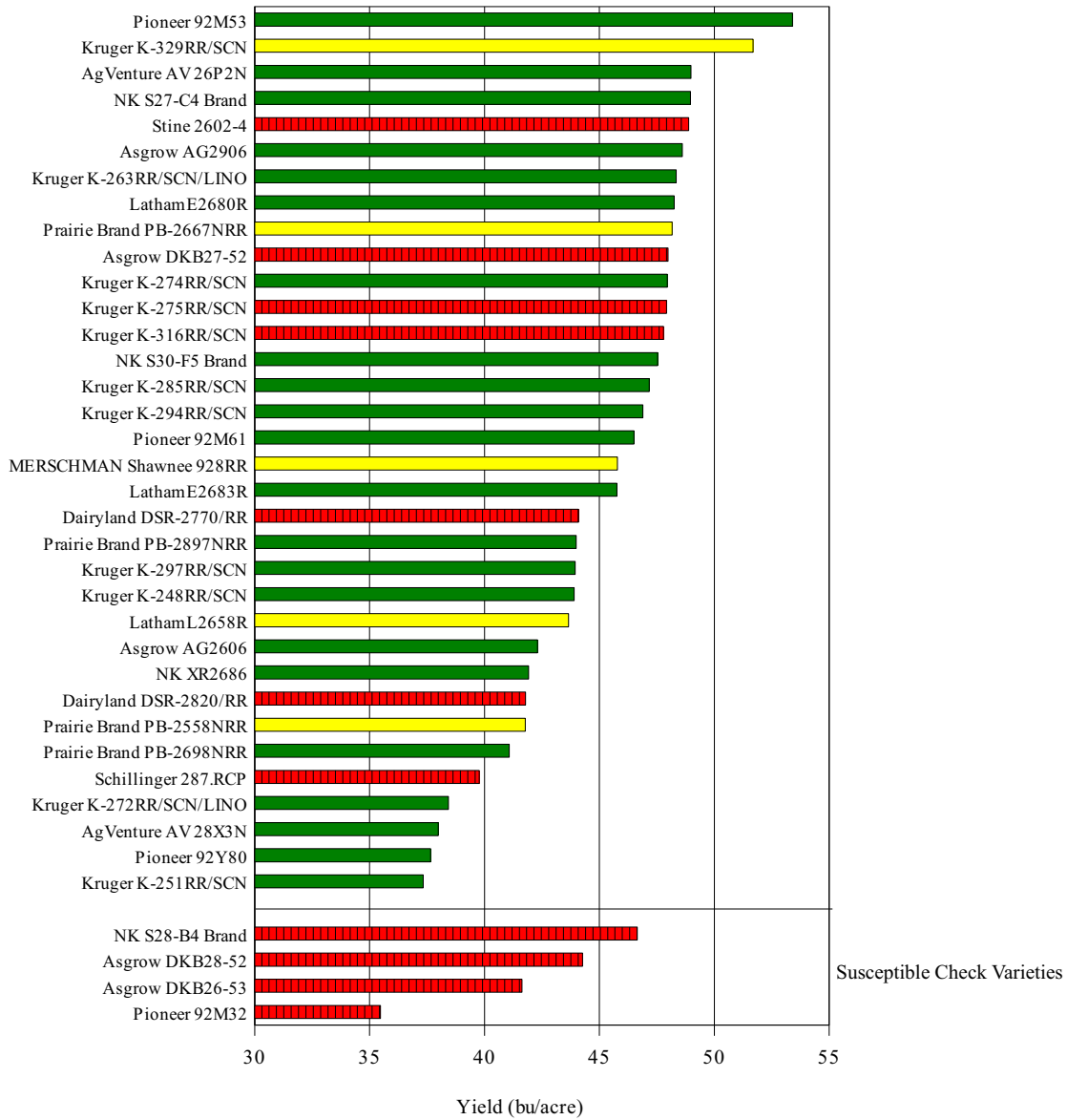
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 748 eggs per 100 cc soil; HG Type 7.

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 4. Gowrie (WC Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 2,434 eggs / 100 cc soil  
 HG Type 7.

Table 4. Gowrie (WC Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Pioneer	92M53	2.5	Peking	2.3	25	9.4	27.8	1.6	53.4	1	1,150	0.5
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	28	9.7	26.8	1.5	51.7	2	1,200	1.0
AgVenture	AV 26P2N	2.6	PI 88788	2.4	26	7.8	24.5	1.6	49.0	3	500	0.5
NK	S27-C4 Brand	2.7	PI 88788	3.4	27	7.0	26.3	1.5	49.0	3	750	0.3
Stine	2602-4	2.6	PI 88788	2.4	25	6.8	25.0	1.5	48.9	5	1,800	5.1
Asgrow	AG2906	2.9	PI 88788	2.1	26	8.2	26.0	1.5	48.6	6	1,000	0.5
Kruger	K-263RR/SCN/LINO	2.6	PI 88788	2.6	24	7.6	27.5	1.3	48.3	7	675	0.2
Latham	E2680R	2.6	PI 88788	1.7	25	8.3	26.3	1.3	48.3	7	925	0.6
Prairie Brand	PB-2667NRR	2.6	PI 88788	2.6	25	7.8	24.5	1.4	48.2	9	1,325	1.1
Asgrow	DKB27-52	2.7	PI 88788	2.3	25	9.0	24.5	1.4	48.0	10	1,300	2.0
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	25	7.4	24.8	1.5	48.0	10	800	0.5
Kruger	K-275RR/SCN	2.7	PI 88788	2.2	26	7.2	27.3	1.5	47.9	12	1,050	1.7
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	29	7.8	25.8	1.5	47.8	13	1,550	1.5
NK	S30-F5 Brand	3.0	PI 88788	3.3	27	7.0	27.8	1.5	47.5	14	425	0.3
Kruger	K-285RR/SCN	2.8	PI 88788	2.4	27	7.7	27.8	1.6	47.2	15	800	0.5
Kruger	K-294RR/SCN	2.9	Peking	2.6	26	8.8	25.8	1.4	46.9	16	675	0.2
Pioneer	92M61	2.6	PI 88788	2.0	24	8.0	25.5	1.3	46.5	18	525	0.3
MERSCHMAN	Shawnee 928RR	2.8	PI 88788	1.3	26	7.5	25.8	1.5	45.8	19	450	0.8
Latham	E2683R	2.6	PI 88788	2.1	23	9.2	24.8	1.3	45.8	19	550	0.3
Dairyland	DSR-2770/RR	2.7	NG <sup>4</sup>	1.7	27	9.1	25.8	1.5	44.1	22	5,125	7.3
Prairie Brand	PB-2897NRR	2.8	PI 88788	2.6	26	9.0	25.8	1.4	44.0	23	1,125	0.5
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	28	8.4	24.0	1.5	43.9	24	1,325	0.4
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	23	8.0	24.8	1.5	43.9	24	775	0.7
Latham	L2658R	2.6	PI 88788	2.2	24	7.6	23.3	1.1	43.7	26	1,900	1.1
Asgrow	AG2606	2.6	PI 88788	2.8	24	9.2	25.3	1.5	42.3	27	575	0.2
NK	XR2686	2.6	Peking	1.9	26	6.9	22.0	1.5	41.9	28	600	0.3
Dairyland	DSR-2820/RR	2.8	NG <sup>4</sup>	2.7	27	7.2	23.8	1.4	41.8	29	2,000	2.2
Prairie Brand	PB-2558NRR	2.5	PI 88788	3.4	22	8.5	22.5	1.3	41.8	29	725	0.8
Prairie Brand	PB-2698NRR	2.6	PI 88788	2.8	24	8.8	23.3	1.4	41.1	32	325	0.2
Schillinger	287.RCP	2.8	PI 88788	3.1	25	8.4	23.5	1.1	39.8	33	5,850	1.9
Kruger	K-272RR/SCN/LINO	2.7	PI 88788	3.8	26	9.8	22.3	1.0	38.4	34	975	0.4
AgVenture	AV 28X3N	2.9	PI 88788	2.3	19	6.9	22.0	1.1	38.0	35	700	0.2
Pioneer	92Y80	2.8	PI 88788	3.8	26	6.8	24.5	1.5	37.7	36	1,025	0.5
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	23	7.7	20.8	1.3	37.3	37	825	0.2
	Average	2.7	-	2.5	25	8.1	24.9	1.4	45.2	-	1,215	1.0
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	1.8	3.2	0.3	8.1	-	1,316	2.8
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	1.5	2.7	0.2	6.8	-	1,101	2.4
<i>NK</i>	<i>S28-B4 Brand</i>	<i>2.8</i>	<i>None</i>	<i>1.7</i>	<i>26</i>	<i>7.8</i>	<i>26.0</i>	<i>1.5</i>	<i>46.7</i>	<i>17</i>	<i>4,350</i>	<i>5.1</i>
<i>Asgrow</i>	<i>DKB28-52</i>	<i>2.8</i>	<i>None</i>	<i>3.0</i>	<i>26</i>	<i>9.3</i>	<i>29.5</i>	<i>1.5</i>	<i>44.3</i>	<i>21</i>	<i>2,800</i>	<i>1.9</i>
<i>Asgrow</i>	<i>DKB26-53</i>	<i>2.6</i>	<i>None</i>	<i>2.4</i>	<i>23</i>	<i>8.3</i>	<i>27.0</i>	<i>1.5</i>	<i>41.6</i>	<i>31</i>	<i>5,575</i>	<i>3.3</i>
<i>Pioneer</i>	<i>92M32</i>	<i>2.3</i>	<i>None</i>	<i>2.3</i>	<i>23</i>	<i>6.9</i>	<i>18.8</i>	<i>1.1</i>	<i>35.5</i>	<i>38</i>	<i>4,325</i>	<i>1.4</i>
	Average	2.6	-	2.3	24	8.1	25.3	1.4	42.0	-	4,263	2.9

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

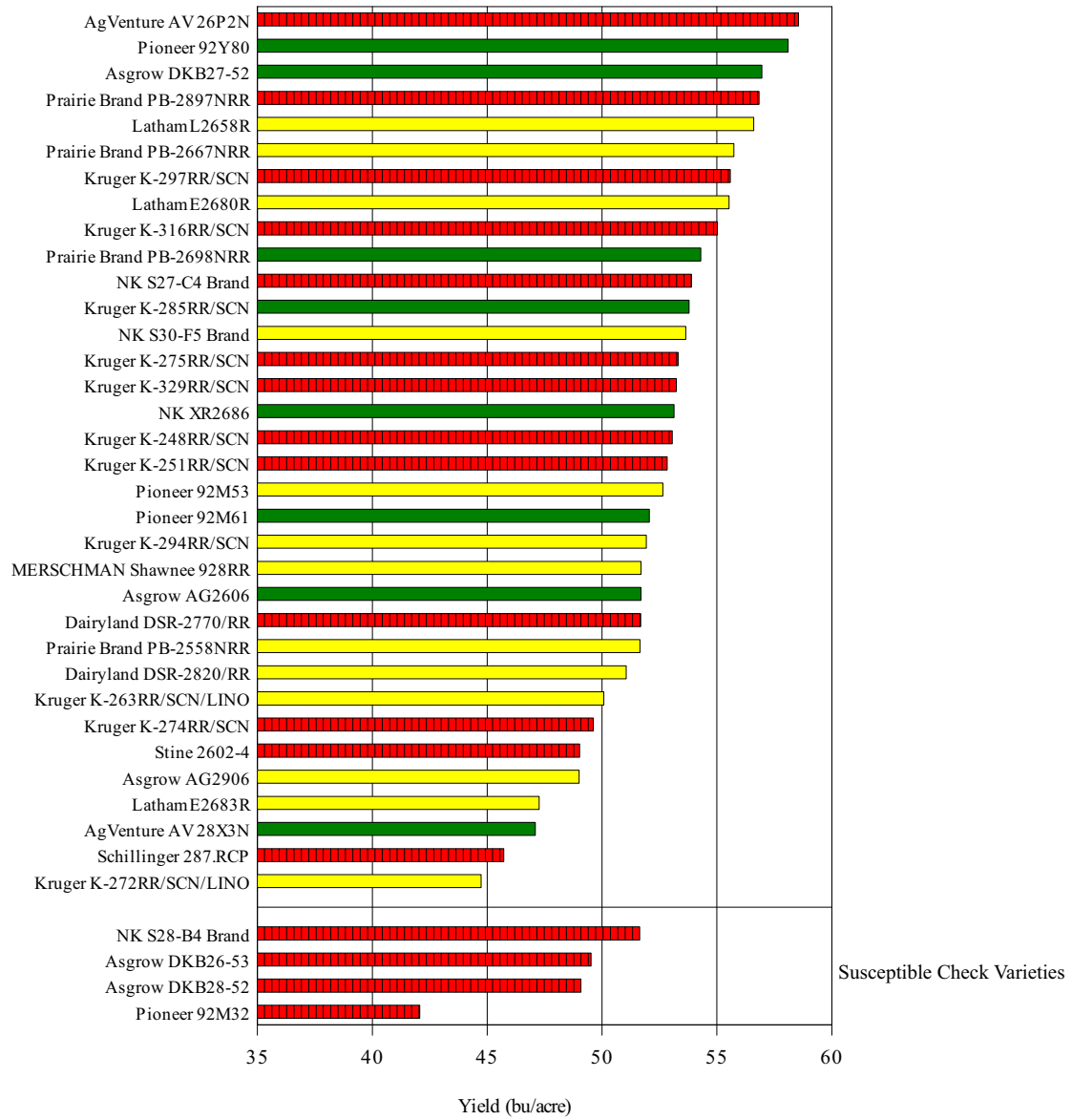
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 2,434 eggs per 100 cc soil; HG Type 7.

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 5. Nevada (C Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 2,098 eggs / 100 cc soil  
 HG Type 1.2.5.6.7 (54% on PI 88788, 44% on Peking).

Table 5. Nevada (C Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
AgVenture	AV 26P2N	2.6	PI 88788	2.4	26	9.6	32.5	1.8	58.6	1	2,225	1.3
Pioneer	92Y80	2.8	PI 88788	3.8	26	7.8	34.5	1.5	58.1	2	1,600	0.6
Asgrow	DKB27-52	2.7	PI 88788	2.3	25	7.5	31.8	1.3	57.0	3	1,375	0.5
Prairie Brand	PB-2897NRR	2.8	PI 88788	2.6	26	9.6	35.5	1.8	56.8	4	2,175	1.7
Latham	L2658R	2.6	PI 88788	2.2	24	7.8	31.8	1.0	56.6	5	1,750	1.2
Prairie Brand	PB-2667NRR	2.6	PI 88788	2.6	25	8.8	31.0	1.5	55.7	6	2,150	0.8
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	28	8.3	31.3	1.5	55.6	7	2,150	1.9
Latham	E2680R	2.6	PI 88788	1.7	25	9.6	34.5	1.5	55.5	8	1,925	1.0
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	29	7.3	34.8	1.5	55.0	9	3,650	1.5
Prairie Brand	PB-2698NRR	2.6	PI 88788	2.8	24	8.5	33.5	1.5	54.3	10	1,350	0.5
NK	S27-C4 Brand	2.7	PI 88788	3.4	27	8.5	29.5	1.5	53.9	11	2,450	1.8
Kruger	K-285RR/SCN	2.8	PI 88788	2.4	27	8.8	34.0	2.0	53.8	12	1,750	0.7
NK	S30-F5 Brand	3.0	PI 88788	3.3	27	8.1	35.0	1.8	53.6	13	1,525	0.8
Kruger	K-275RR/SCN	2.7	PI 88788	2.2	26	9.2	40.3	2.0	53.3	14	4,150	3.1
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	28	8.2	35.8	1.6	53.2	15	3,800	1.8
NK	XR2686	2.6	Peking	1.9	26	6.8	31.5	1.6	53.1	16	1,175	0.6
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	23	8.0	32.3	1.5	53.1	16	1,625	1.4
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	23	9.3	30.3	1.5	52.8	18	1,850	1.8
Pioneer	92M53	2.5	Peking	2.3	25	8.1	34.0	1.8	52.6	19	2,100	1.0
Pioneer	92M61	2.6	PI 88788	2.0	24	9.9	32.5	1.5	52.1	20	1,525	0.6
Kruger	K-294RR/SCN	2.9	Peking	2.6	26	8.9	34.0	1.5	51.9	21	2,475	1.0
MERSCHMAN	Shawnee 928RR	2.8	PI 88788	1.3	26	8.7	34.5	1.6	51.7	22	1,625	1.0
Asgrow	AG2606	2.6	PI 88788	2.8	24	8.8	35.0	1.6	51.7	22	1,300	0.6
Dairyland	DSR-2770/RR	2.7	NG <sup>4</sup>	1.7	27	8.9	33.3	1.5	51.7	22	3,150	1.7
Prairie Brand	PB-2558NRR	2.5	PI 88788	3.4	22	8.8	29.3	1.5	51.7	22	2,175	0.9
Dairyland	DSR-2820/RR	2.8	NG <sup>4</sup>	2.7	27	8.1	29.5	1.6	51.0	27	1,325	1.0
Kruger	K-263RR/SCN/LINO	2.6	PI 88788	2.6	24	9.3	36.0	1.8	50.1	28	1,575	0.9
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	25	8.3	35.5	1.9	49.6	29	2,775	2.0
Stine	2602-4	2.6	PI 88788	2.4	25	9.3	33.8	1.6	49.0	32	2,600	8.2
Asgrow	AG2906	2.9	PI 88788	2.1	26	8.0	35.5	1.6	49.0	32	2,100	1.1
Latham	E2683R	2.6	PI 88788	2.1	23	9.3	29.3	1.5	47.3	34	2,125	1.1
AgVenture	AV 28X3N	2.9	PI 88788	2.3	19	8.6	28.3	1.4	47.1	35	1,825	0.6
Schillinger	287.RCP	2.8	PI 88788	3.1	25	8.3	30.3	1.4	45.7	36	3,350	2.1
Kruger	K-272RR/SCN/LINO	2.7	PI 88788	3.8	26	7.8	30.3	1.5	44.7	37	1,275	0.9
	Average	2.7	-	2.5	25	8.5	32.9	1.6	52.6	-	2,117	1.4
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	3.1	0.2	6.4	-	NS	NS
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	1.5	2.6	0.2	5.3	-	1,500	2.6
<i>NK</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.7	26	9.8	32.3	1.5	51.6	26	4,900	2.8
<i>Asgrow</i>	<i>DKB26-53</i>	2.6	<i>None</i>	2.4	23	8.1	34.5	1.5	49.5	30	2,225	1.8
<i>Asgrow</i>	<i>DKB28-52</i>	2.8	<i>None</i>	3.0	26	8.9	35.0	1.6	49.1	31	4,950	2.6
<i>Pioneer</i>	<i>92M32</i>	2.3	<i>None</i>	2.3	23	8.1	24.3	1.3	42.1	38	2,075	1.4
	Average	2.6	-	2.3	24	8.7	31.5	1.5	48.1	-	3,538	2.2

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

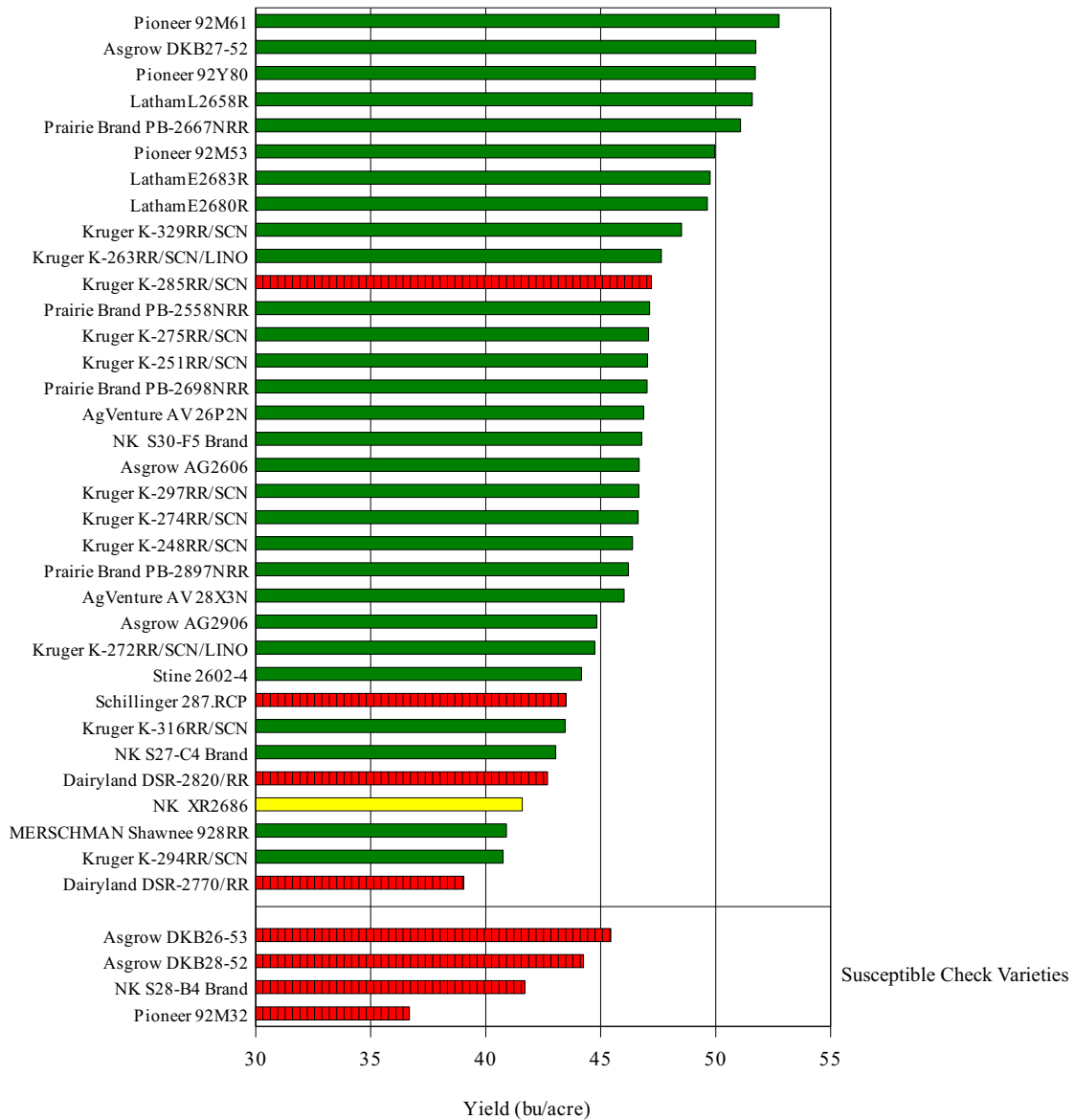
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 2,098 eggs per 100 cc soil; HG Type 1.2.5.6.7 (54% on PI 88788, 44% on Peking).

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 6. Urbana (EC Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 3,238 eggs / 100 cc soil  
 HG Type 7.



Table 6. Urbana (EC Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Pioneer	92M61	2.6	PI 88788	2.0	24	8.6	32.5	1.6	52.8	1	1,000	0.4
Asgrow	DKB27-52	2.7	PI 88788	2.3	25	8.8	31.0	1.5	51.7	2	450	0.3
Pioneer	92Y80	2.8	PI 88788	3.8	26	7.3	33.0	1.8	51.7	2	875	0.4
Latham	L2658R	2.6	PI 88788	2.2	24	8.5	30.8	1.5	51.6	4	900	0.4
Prairie Brand	PB-2667NRR	2.6	PI 88788	2.6	25	8.2	30.0	1.1	51.1	5	400	0.1
Pioneer	92M53	2.5	Peking	2.3	25	8.3	32.0	1.5	50.0	6	375	0.2
Latham	E2683R	2.6	PI 88788	2.1	23	8.1	31.5	1.4	49.8	7	900	0.6
Latham	E2680R	2.6	PI 88788	1.7	25	7.5	32.5	1.6	49.6	8	1,100	0.3
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	28	9.4	34.3	1.9	48.5	9	3,250	0.7
Kruger	K-263RR/SCN/LINO	2.6	PI 88788	2.6	24	8.4	36.3	1.9	47.6	10	575	0.1
Kruger	K-285RR/SCN	2.8	PI 88788	2.4	27	8.6	32.3	1.9	47.2	11	2,025	1.7
Prairie Brand	PB-2558NRR	2.5	PI 88788	3.4	22	9.3	30.3	1.3	47.1	12	850	0.5
Kruger	K-275RR/SCN	2.7	PI 88788	2.2	26	7.6	37.3	2.3	47.1	12	1,200	0.4
Kruger	K-251RR/SCN	2.5	PI 88788	1.8	23	8.0	28.5	1.4	47.0	14	1,225	0.3
Prairie Brand	PB-2698NRR	2.6	PI 88788	2.8	24	8.2	31.0	1.3	47.0	14	1,300	0.3
AgVenture	AV 26P2N	2.6	PI 88788	2.4	26	8.5	30.5	1.6	46.9	16	450	0.1
NK	S30-F5 Brand	3.0	PI 88788	3.3	27	7.2	36.0	2.0	46.8	17	750	0.2
Asgrow	AG2606	2.6	PI 88788	2.8	24	8.6	33.3	1.6	46.7	18	525	0.2
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	28	7.8	32.8	1.5	46.7	18	1,000	0.3
Kruger	K-274RR/SCN	2.7	PI 88788	2.9	25	9.2	34.0	1.8	46.6	20	525	0.2
Kruger	K-248RR/SCN	2.4	PI 88788	2.8	23	8.5	30.0	1.4	46.4	21	725	0.3
Prairie Brand	PB-2897NRR	2.8	PI 88788	2.6	26	9.0	33.5	1.8	46.2	22	575	0.2
AgVenture	AV 28X3N	2.9	PI 88788	2.3	19	8.9	27.8	1.3	46.0	23	675	0.1
Asgrow	AG2906	2.9	PI 88788	2.1	26	6.9	35.5	1.6	44.8	25	575	0.3
Kruger	K-272RR/SCN/LINO	2.7	PI 88788	3.8	26	7.7	30.5	1.5	44.7	26	725	0.3
Stine	2602-4	2.6	PI 88788	2.4	25	7.5	33.0	1.6	44.2	28	600	0.2
Schillinger	287.RCP	2.8	PI 88788	3.1	25	7.8	28.0	1.4	43.5	29	13,950	5.6
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	29	8.3	32.3	1.5	43.5	29	725	0.3
NK	S27-C4 Brand	2.7	PI 88788	3.4	27	7.7	29.5	1.6	43.0	31	800	0.3
Dairyland	DSR-2820/RR	2.8	NG <sup>4</sup>	2.7	27	7.5	30.3	1.5	42.7	32	8,575	2.9
NK	XR2686	2.6	Peking	1.9	26	6.9	32.0	1.5	41.6	34	4,400	1.2
MERSCHMAN	Shawnee 928RR	2.8	PI 88788	1.3	26	8.8	35.8	1.9	40.9	35	625	0.2
Kruger	K-294RR/SCN	2.9	Peking	2.6	26	8.3	35.0	1.6	40.8	36	700	0.4
Dairyland	DSR-2770/RR	2.7	NG <sup>4</sup>	1.7	27	8.7	30.8	1.6	39.0	37	9,350	6.7
	Average	2.7	-	2.5	25	8.2	32.2	1.6	46.5	-	1,843	0.8
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	1.8	0.3	3.4	-	3,954	1.7
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	NS	1.5	0.3	2.9	-	3,308	1.4
<i>Asgrow</i>	<i>DKB26-53</i>	2.6	<i>None</i>	2.4	23	9.5	34.8	1.9	45.4	24	8,625	2.2
<i>Asgrow</i>	<i>DKB28-52</i>	2.8	<i>None</i>	3.0	26	9.4	33.0	1.6	44.3	27	11,300	3.5
<i>NK</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.7	26	8.8	31.5	1.6	41.7	33	12,925	6.1
<i>Pioneer</i>	<i>92M32</i>	2.3	<i>None</i>	2.3	23	8.2	24.0	1.0	36.7	38	10,325	6.5
	Average	2.6	-	2.3	24	9.0	30.8	1.5	42.0	-	10,793	4.6

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

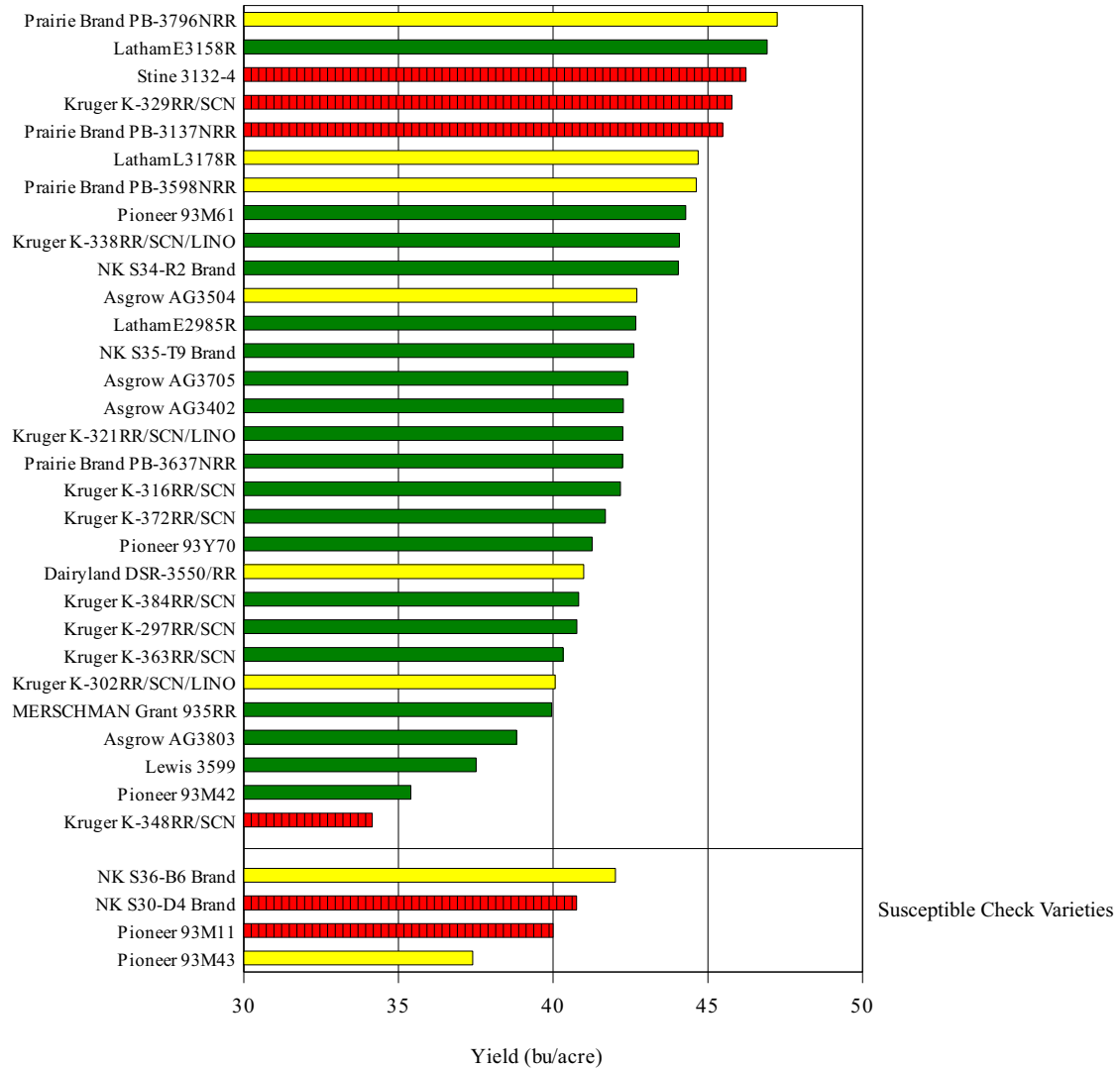
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 3,238 eggs per 100 cc soil; HG Type 7.

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 7. Council Bluffs (SW Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 2,966 eggs / 100 cc soil  
 HG Type 2.5.7 (25% on PI 88788).

Table 7. Council Bluffs (SW Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Prairie Brand	PB-3796NRR	3.7	PI 88788	2.6	30	6.6	30.8	1.9	47.2	1	1,625	0.9
Latham	E3158R	3.1	PI 88788	2.6	20	8.7	28.0	1.5	46.9	2	1,900	0.7
Stine	3132-4	3.1	PI 88788	2.4	21	6.8	29.5	1.5	46.2	3	3,475	1.5
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	19	8.0	28.5	1.5	45.8	4	2,350	1.5
Prairie Brand	PB-3137NRR	3.1	PI 88788	2.1	20	6.9	27.8	1.4	45.5	5	4,725	1.4
Latham	L3178R	3.1	PI 88788	2.7	21	7.1	27.3	1.5	44.7	6	2,925	0.9
Prairie Brand	PB-3598NRR	3.5	PI 88788	2.5	25	7.7	27.0	1.5	44.6	7	2,000	0.8
Pioneer	93M61	3.6	PI 88788	3.6	25	7.2	29.0	1.5	44.3	8	2,475	0.7
Kruger	K-338RR/SCN/LINO	3.3	PI 88788	3.6	32	9.7	26.3	1.5	44.1	9	1,700	0.5
NK	S34-R2 Brand	3.4	PI 88788	2.8	27	8.8	27.0	1.5	44.0	10	1,250	0.5
Asgrow	AG3504	3.5	PI 88788	3.2	25	8.3	30.0	1.8	42.7	11	1,850	1.2
Latham	E2985R	2.9	PI 88788	2.8	21	7.4	28.3	1.4	42.7	11	1,700	0.7
NK	S35-T9 Brand	3.5	PI 88788	3.4	26	7.7	30.5	1.6	42.6	13	800	0.3
Asgrow	AG3705	3.7	PI 88788	3.7	26	8.3	30.3	1.9	42.4	14	1,150	0.7
Asgrow	AG3402	3.4	PI 88788	2.9	25	9.0	30.8	1.9	42.3	15	800	0.3
Kruger	K-321RR/SCN/LINO	3.2	PI 88788	2.5	20	7.6	26.0	1.5	42.2	16	1,775	0.6
Prairie Brand	PB-3637NRR	3.6	PI 88788	3.4	28	8.1	30.3	1.5	42.2	16	1,375	0.7
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	20	7.2	26.0	1.5	42.2	16	1,525	0.6
Kruger	K-372RR/SCN	3.7	PI 88788	3.8	30	5.8	28.8	1.5	41.7	20	2,650	0.7
Pioneer	93Y70	3.7	PI 88788	3.1	26	8.0	30.8	1.8	41.3	21	1,950	0.6
Dairyland	DSR-3550/RR	3.5	NG <sup>4</sup>	3.4	27	7.0	28.5	1.6	41.0	22	2,375	1.1
Kruger	K-384RR/SCN	3.8	PI 88788	3.1	31	9.0	29.5	1.8	40.8	23	800	0.6
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	19	7.3	24.0	1.6	40.8	23	1,100	0.5
Kruger	K-363RR/SCN	3.6	PI 88788	3.3	29	7.8	29.0	1.5	40.3	26	850	0.4
Kruger	K-302RR/SCN/LINO	3.0	PI 88788	3.0	21	7.9	27.3	1.5	40.1	27	2,300	0.9
MERSCHMAN	Grant 935RR	2.8	PI 88788	2.1	25	8.3	30.8	1.5	40.0	28	1,700	0.6
Asgrow	AG3803	3.8	PI 88788	3.0	29	7.6	29.5	2.0	38.8	30	1,150	0.4
Lewis	3599	3.5	PI 88788	3.6	27	6.7	26.8	2.0	37.5	31	1,525	0.6
Pioneer	93M42	3.4	PI 88788	3.1	24	8.1	30.5	1.5	35.4	33	825	0.5
Kruger	K-348RR/SCN	3.4	PI 88788	3.6	24	7.7	25.3	2.0	34.2	34	1,175	1.6
	Average	3.4	-	3.0	25	7.7	28.5	1.6	42.2	-	1,793	0.8
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	2.4	0.2	4.7	-	1,640	1.0
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	1.5	2.0	0.2	3.9	-	1,371	0.8
<i>NK</i>	<i>S36-B6 Brand</i>	3.6	<i>None</i>	2.6	29	6.8	28.5	1.5	42.0	19	3,525	0.8
<i>NK</i>	<i>S30-D4 Brand</i>	3.0	<i>None</i>	3.9	24	9.6	25.0	1.3	40.8	23	2,475	1.3
<i>Pioneer</i>	<i>93M11</i>	3.1	<i>None</i>	1.9	19	9.3	23.0	1.5	40.0	28	1,700	2.3
<i>Pioneer</i>	<i>93M43</i>	3.4	<i>None</i>	2.2	24	7.7	29.0	1.5	37.4	32	2,500	0.9
	Average	3.3	-	2.6	24	8.3	26.4	1.4	40.0	-	2,550	1.3

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

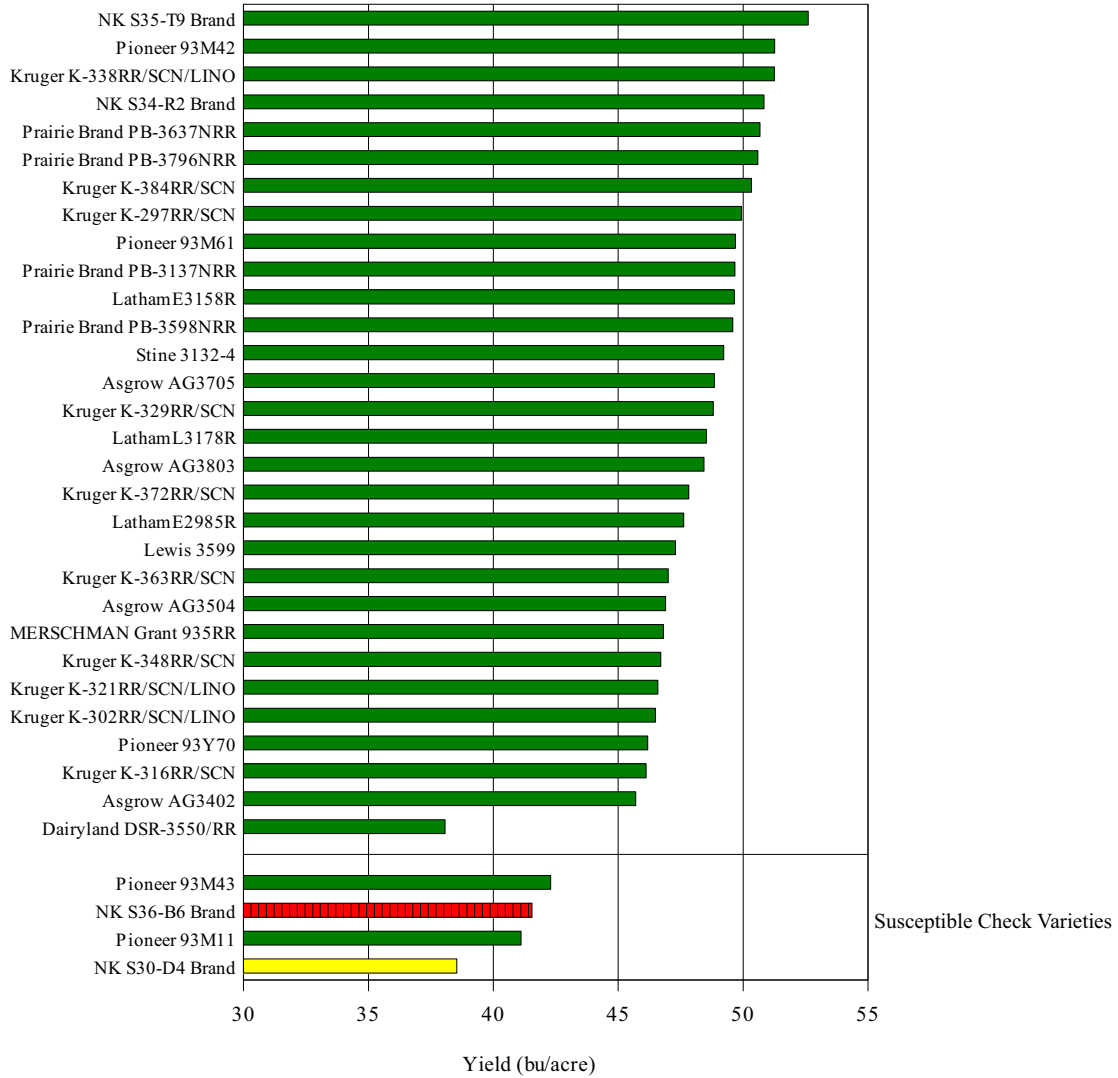
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 2,966 eggs per 100 cc soil; HG Type 2.5.7 (25% on PI 88788).

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 8. Malvern (SW Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 5,542 eggs / 100 cc soil  
 HG Type 7.

Table 8. Malvern (SW Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	R <sup>2</sup>
NK	S35-T9 Brand	3.5	PI 88788	3.4	26	7.3	42.0	2.0	52.6	1	1,050	0.1
Pioneer	93M42	3.4	PI 88788	3.1	24	7.4	40.3	1.5	51.3	2	1,100	0.2
Kruger	K-338RR/SCN/LINO	3.3	PI 88788	3.6	32	8.8	34.5	1.8	51.2	3	1,550	0.2
NK	S34-R2 Brand	3.4	PI 88788	2.8	27	9.8	37.0	1.5	50.8	4	975	0.2
Prairie Brand	PB-3637NRR	3.6	PI 88788	3.4	28	8.5	39.0	1.8	50.7	5	1,425	0.4
Prairie Brand	PB-3796NRR	3.7	PI 88788	2.6	30	8.3	36.3	1.9	50.6	6	1,875	0.6
Kruger	K-384RR/SCN	3.8	PI 88788	3.1	31	7.9	38.8	1.8	50.3	7	1,250	0.3
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	19	8.8	33.5	1.5	49.9	8	1,375	0.2
Pioneer	93M61	3.6	PI 88788	3.6	25	9.0	37.0	1.8	49.7	9	1,750	0.3
Prairie Brand	PB-3137NRR	3.1	PI 88788	2.1	20	7.3	37.0	2.0	49.7	9	1,225	0.3
Latham	E3158R	3.1	PI 88788	2.6	20	7.9	36.5	2.0	49.6	11	2,875	0.7
Prairie Brand	PB-3598NRR	3.5	PI 88788	2.5	25	9.3	35.0	1.6	49.6	11	1,100	0.3
Stine	3132-4	3.1	PI 88788	2.4	21	8.4	36.0	1.9	49.2	13	1,425	0.3
Asgrow	AG3705	3.7	PI 88788	3.7	26	7.2	37.3	1.8	48.9	14	1,325	0.2
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	19	8.8	35.3	1.6	48.8	15	2,175	0.4
Latham	L3178R	3.1	PI 88788	2.7	21	7.3	35.0	1.5	48.5	16	1,750	0.3
Asgrow	AG3803	3.8	PI 88788	3.0	29	8.1	39.0	2.0	48.4	17	1,025	0.3
Kruger	K-372RR/SCN	3.7	PI 88788	3.8	30	4.9	34.3	1.8	47.8	18	1,250	0.2
Latham	E2985R	2.9	PI 88788	2.8	21	8.3	36.3	1.6	47.6	19	1,125	0.2
Lewis	3599	3.5	PI 88788	3.6	27	8.8	36.8	1.6	47.3	20	1,575	0.3
Kruger	K-363RR/SCN	3.6	PI 88788	3.3	29	6.3	34.5	1.5	47.0	21	825	0.3
Asgrow	AG3504	3.5	PI 88788	3.2	25	7.6	40.0	2.0	46.9	22	1,250	0.2
MERSCHMAN	Grant 935RR	2.8	PI 88788	2.1	25	7.9	37.5	1.9	46.8	23	800	0.1
Kruger	K-348RR/SCN	3.4	PI 88788	3.6	24	7.1	33.7	1.5	46.7	24	1,333	0.3
Kruger	K-321RR/SCN/LINO	3.2	PI 88788	2.5	20	8.0	33.3	1.5	46.6	25	1,075	0.2
Kruger	K-302RR/SCN/LINO	3.0	PI 88788	3.0	21	7.3	38.3	1.5	46.5	26	1,225	0.2
Pioneer	93Y70	3.7	PI 88788	3.1	26	7.3	40.0	2.0	46.2	27	825	0.2
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	20	6.4	34.5	1.5	46.1	28	1,275	0.4
Asgrow	AG3402	3.4	PI 88788	2.9	25	8.7	37.5	2.0	45.7	29	1,100	0.2
Dairyland	DSR-3550/RR	3.5	NG <sup>4</sup>	3.4	27	5.5	31.8	1.5	38.1	34	2,075	0.6
	Average	3.4	-	3.0	25	7.8	36.6	1.7	48.3	-	1,366	0.3
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	2.1	3.3	0.3	4.0	-	1,242	0.4
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	1.8	2.8	0.3	3.4	-	1,039	0.3
<i>Pioneer</i>	<i>93M43</i>	<i>3.4</i>	<i>None</i>	<i>2.2</i>	<i>24</i>	<i>9.8</i>	<i>39.8</i>	<i>2.0</i>	<i>42.3</i>	<i>30</i>	<i>2,525</i>	<i>0.7</i>
<i>NK</i>	<i>S36-B6 Brand</i>	<i>3.6</i>	<i>None</i>	<i>2.6</i>	<i>29</i>	<i>7.6</i>	<i>37.0</i>	<i>1.5</i>	<i>41.6</i>	<i>31</i>	<i>6,425</i>	<i>3.7</i>
<i>Pioneer</i>	<i>93M11</i>	<i>3.1</i>	<i>None</i>	<i>1.9</i>	<i>19</i>	<i>8.3</i>	<i>33.5</i>	<i>1.5</i>	<i>41.1</i>	<i>32</i>	<i>2,700</i>	<i>0.7</i>
<i>NK</i>	<i>S30-D4 Brand</i>	<i>3.0</i>	<i>None</i>	<i>3.9</i>	<i>24</i>	<i>8.3</i>	<i>33.3</i>	<i>1.5</i>	<i>38.5</i>	<i>33</i>	<i>4,975</i>	<i>0.9</i>
	Average	3.3	-	2.6	24	8.5	35.9	1.6	40.9	-	4,156	1.5

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

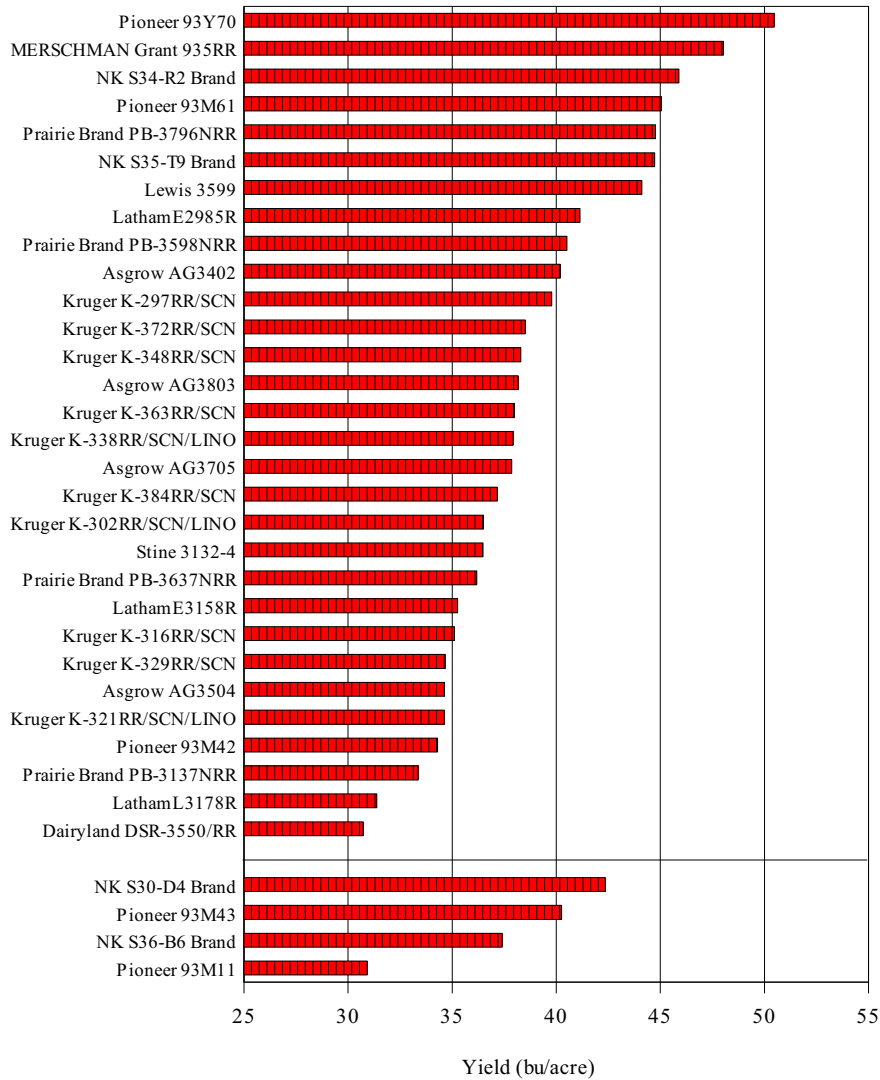
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 5,542 eggs per 100 cc soil; HG Type 7.

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Figure 9. Hills (SE Iowa)



■ SCN numbers reduced over growing season  
■ SCN numbers constant over growing season  
■ SCN numbers increased over growing season

Average initial SCN population 688 eggs / 100 cc soil  
 HG Type 2.5.7 (18% on PI 88788).

Table 9. Hills (SE Iowa)

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Emergence (plants/ft)	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Pioneer	93Y70	3.7	PI 88788	3.1	26	7.3	34.3	2.0	50.5	1	2,075	2.9
MERSCHMAN	Grant 935RR	2.8	PI 88788	2.1	25	7.6	30.5	1.9	48.0	2	3,350	4.9
NK	S34-R2 Brand	3.4	PI 88788	2.8	27	8.3	27.5	1.5	45.9	3	1,500	3.5
Pioneer	93M61	3.6	PI 88788	3.6	25	7.0	29.5	1.6	45.0	4	2,900	15.4
Prairie Brand	PB-3796NRR	3.7	PI 88788	2.6	30	7.8	28.0	1.3	44.8	5	2,025	6.0
NK	S35-T9 Brand	3.5	PI 88788	3.4	26	8.3	34.5	1.9	44.7	6	1,025	1.5
Lewis	3599	3.5	PI 88788	3.6	27	6.8	30.8	1.5	44.1	7	3,825	5.0
Latham	E2985R	2.9	PI 88788	2.8	21	7.5	30.0	1.5	41.1	9	2,350	3.4
Prairie Brand	PB-3598NRR	3.5	PI 88788	2.5	25	7.3	26.5	1.4	40.5	10	1,800	7.5
Asgrow	AG3402	3.4	PI 88788	2.9	25	7.8	31.3	2.1	40.2	12	1,550	6.9
Kruger	K-297RR/SCN	2.9	PI 88788	1.6	19	7.9	27.3	1.4	39.8	13	1,775	3.8
Kruger	K-372RR/SCN	3.7	PI 88788	3.8	30	6.1	28.3	1.8	38.5	14	1,475	2.0
Kruger	K-348RR/SCN	3.4	PI 88788	3.6	24	6.3	26.8	1.5	38.3	15	1,900	3.7
Asgrow	AG3803	3.8	PI 88788	3.0	29	7.9	28.5	1.6	38.2	16	1,325	4.2
Kruger	K-363RR/SCN	3.6	PI 88788	3.3	29	7.4	30.8	1.6	38.0	17	1,375	6.5
Kruger	K-338RR/SCN/LINO	3.3	PI 88788	3.6	32	6.8	28.5	1.6	37.9	18	1,950	6.6
Asgrow	AG3705	3.7	PI 88788	3.7	26	7.9	30.5	1.5	37.9	18	825	5.2
Kruger	K-384RR/SCN	3.8	PI 88788	3.1	31	7.9	29.0	1.8	37.2	21	1,650	5.6
Kruger	K-302RR/SCN/LINO	3.0	PI 88788	3.0	21	7.3	30.0	1.5	36.5	22	1,775	2.6
Stine	3132-4	3.1	PI 88788	2.4	21	8.4	28.3	1.5	36.5	22	4,350	13.4
Prairie Brand	PB-3637NRR	3.6	PI 88788	3.4	28	8.3	29.5	1.5	36.2	24	1,975	6.2
Latham	E3158R	3.1	PI 88788	2.6	20	8.9	27.5	1.6	35.3	25	2,750	3.5
Kruger	K-316RR/SCN	3.1	PI 88788	3.3	20	6.8	23.8	1.0	35.1	26	1,700	3.8
Kruger	K-329RR/SCN	3.2	PI 88788	2.8	19	8.5	27.5	1.5	34.7	27	3,250	5.2
Asgrow	AG3504	3.5	PI 88788	3.2	25	6.5	30.5	1.9	34.6	28	1,550	5.6
Kruger	K-321RR/SCN/LINO	3.2	PI 88788	2.5	20	6.9	26.3	1.4	34.6	28	2,850	8.6
Pioneer	93M42	3.4	PI 88788	3.1	24	8.3	33.0	1.6	34.3	30	950	2.0
Prairie Brand	PB-3137NRR	3.1	PI 88788	2.1	20	8.0	26.5	1.4	33.4	31	6,050	6.8
Latham	L3178R	3.1	PI 88788	2.7	21	7.6	24.3	1.3	31.4	32	4,500	16.0
Dairyland	DSR-3550/RR	3.5	NG <sup>4</sup>	3.4	27	5.8	27.5	1.3	30.7	34	12,850	79.9
	Average	3.4	-	3.0	25	7.5	28.9	1.6	38.8	-	2,641	8.3
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	4.2	0.3	7.2	-	3,568	33.9
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	NS	3.5	0.3	6.1	-	2,984	28.4
<i>NK</i>	<i>S30-D4 Brand</i>	<i>3.0</i>	<i>None</i>	<i>3.9</i>	<i>24</i>	<i>8.6</i>	<i>25.0</i>	<i>1.1</i>	<i>42.4</i>	<i>8</i>	<i>16,175</i>	<i>54.4</i>
<i>Pioneer</i>	<i>93M43</i>	<i>3.4</i>	<i>None</i>	<i>2.2</i>	<i>24</i>	<i>7.7</i>	<i>31.5</i>	<i>1.6</i>	<i>40.3</i>	<i>11</i>	<i>8,000</i>	<i>20.4</i>
<i>NK</i>	<i>S36-B6 Brand</i>	<i>3.6</i>	<i>None</i>	<i>2.6</i>	<i>29</i>	<i>7.7</i>	<i>29.0</i>	<i>1.3</i>	<i>37.4</i>	<i>20</i>	<i>8,575</i>	<i>12.0</i>
<i>Pioneer</i>	<i>93M11</i>	<i>3.1</i>	<i>None</i>	<i>1.9</i>	<i>19</i>	<i>8.5</i>	<i>25.5</i>	<i>1.3</i>	<i>30.9</i>	<i>33</i>	<i>14,075</i>	<i>34.0</i>
	Average	3.3	-	2.6	24	8.1	27.8	1.3	37.7	-	11,706	30.2

Values presented in tables are means. Entries are listed in decreasing order of yield.

Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 688 eggs per 100 cc soil; HG Type 2.5.7 (18% on PI 88788).

<sup>2</sup> Final SCN egg population density / initial SCN egg population density.

<sup>3</sup> Least significant difference: values are from Fisher's least significant difference test, NS = no significant differences among the varieties.

<sup>4</sup> NG = not given; no genetic source of resistance given; marketed as possessing "field resistance".

Table 10. 2008 Seed Treatments by Company.

Apron Maxx

Schillinger Seed, Inc.

CruiserMaxx

AgVenture ProfiSeed

Albert Lea Seed (Viking Brand)

Kruger Seeds, Inc.

Monsanto Company (Asgrow Brand)

NuTech Seed

Pioneer Hi-Bred

Prairie Brand Seed

Stine Seed Company

Syngenta Seeds (NK Brand)

Ziller Seed Co., Inc.

Trilex AL

Lewis Hybrids, Inc.

Trilex AL and Gaucho

Latham Seed Company

Merschman Seeds, Inc.

Untreated

Dairyland Seed Co., Inc.



**Table 11. 2008 Test Participants.**

**AgVenture ProfiSeed**

Lee Schaefer  
111 Hwy.  
Hampton, IA 50401  
phone 800-221-1111  
e-mail lee@profiseed.com  
web site www.AgVenture.com

**Albert Lea Seed (Viking Brand)**

Brian Hite  
1111 . Main St.  
P.O. Box 12  
Albert Lea, MN 56008  
phone 507-335-1111  
e-mail brian@alseed.com  
web site www.alseed.com

**Dairyland Seed Co., Inc.**

P.O. Box 8  
West Bend, IA 50591  
phone 800-221-0101  
web site www.dairylandseed.com

**Kruger Seeds, Inc.**

Hwy. 20 East  
P.O. Box A  
Dike, IA 50522  
phone 800-222-2121  
e-mail info@krugerseed.com  
web site www.krugerseed.com

**Latham Seed Company**

Mark C. Rundmeier  
111 180th St.  
Aleander, IA 50520-8028  
phone 800-882-2828  
e-mail markg@lathamseeds.com  
web site www.lathamseeds.com

**Lewis Hybrids, Inc.**

Scott Lewis  
P.O. Box 8  
0 . Maple Ave.  
rsa, IL 62521  
phone 217-221-1111  
e-mail scott@lewishybrids.com  
website www.lewishybrids.com

**Merschman Seeds, Inc.**

oe Merschman or Skip Long  
10 Ave. D  
P.O. Box  
West Point, IA 50672  
phone 800-888-8888  
e-mail oem@merschmanseeds.com  
e-mail skip@merschmanseeds.com  
web site www.merschmanseeds.com

**Monsanto Company (Asgrow Brand)**

800 N. Lindbergh Blvd.  
St. Louis, MO 63101  
phone 800-888-8888  
web site www.monsanto.com  
web site www.agsrow.com

**NuTech Seed**

Tom Thompson  
111 Hwy  
Forest City, IA 50501  
phone 515-811-0101  
e-mail tom.thompson@nutechseed.com  
web site nutechseed.com

**Pioneer Hi-Bred**

Brent Wilson  
211 N. 11th Ave.  
Ankeny, IA 50022  
phone 515-201-1111  
e-mail brent.wilson@pioneer.com  
web site www.pioneer.com

**Prairie Brand Seed**

Ben Fisher  
111 Ave.  
Story City, IA 50248  
phone 800-888-8881  
e-mail ben@prairiebrandseed.com  
web site www.prairiebrandseed.com

**Schillinger Seed, Inc.**

Corey Nikkel  
200 Corporate Drive, Suite 10  
West Des Moines, IA 50325  
phone 515-221-1111  
e-mail cnikkel@schillingerseed.com  
web site www.schillingerseed.com

**Stine Seed Company**

Paul D. By  
22 Laredo Trail  
Adel, IA 50002  
phone 515-221-0101  
e-mail pdeby@stineseed.com  
web site www.stineseed.com

**Syngenta Seeds (NK Brand)**

Steve Sick  
100 Robinson Blvd.  
Waterloo, IA 50600  
phone 319-111-1111  
e-mail steve.sick@syngenta.com  
web site www.syngenta.com

**Ziller Seed Company, Inc.**

Jeff Hamre  
P.O. Box 0  
Anamongo, MN 55008  
phone 202-221-1111  
e-mail hamre@wildblue.net  
web site www.zillerseed.com

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