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## **Evaluation of Soybean Varieties Resistant to Soybean Cyst Nematode in Iowa—2011**



View of the Central Iowa location.

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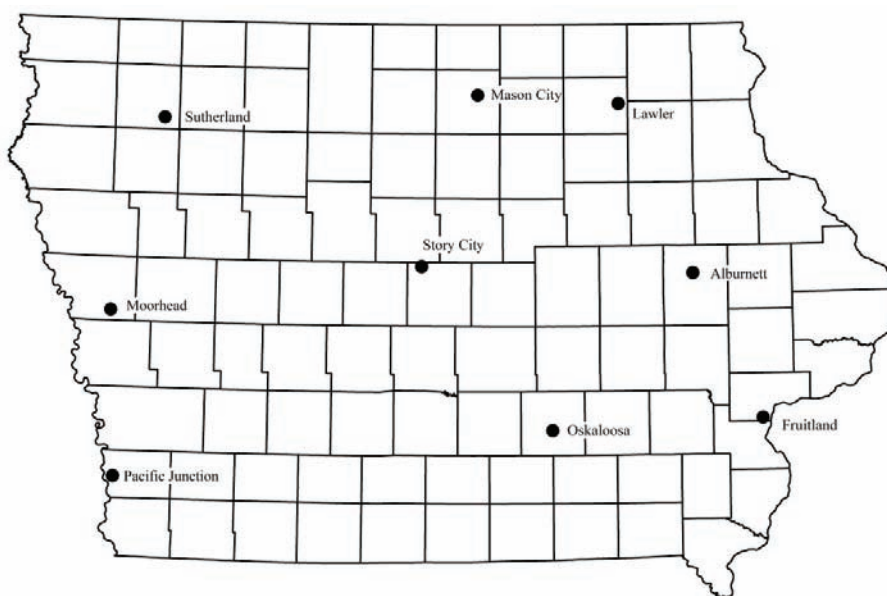
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## Introduction

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 farmers. 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, 50 glyphosate-resistant, SCN-resistant soybean varieties were evaluated using Roundup® herbicide, and four non-glyphosate-resistant (one LibertyLink® and three conventional), SCN-resistant soybean varieties were evaluated using conventional herbicides. The northern Iowa experiments were conducted near Sutherland (northwest Iowa), Mason City (north central Iowa), and Lawler (northeast Iowa). In the central Iowa district, 50 glyphosate-resistant, SCN-resistant soybean varieties were evaluated using Roundup® herbicide and four non-glyphosate-resistant (three LibertyLink® and one conventional), SCN-resistant soybean varieties were evaluated using conventional herbicides. The central Iowa experiments were conducted near Moorhead (west central Iowa), Story City (central Iowa), and Alburnett (east central Iowa). In the southern Iowa district, 50 glyphosate-resistant, SCN-resistant soybean varieties were evaluated using Roundup® herbicide and nine non-glyphosate-resistant (six LibertyLink®, and three conventional), SCN-resistant soybean varieties were evaluated using conventional herbicides. The southern Iowa experiments were conducted near Pacific Junction (southwest Iowa), Oskaloosa (south central Iowa), and Fruitland (southeast Iowa). The Pacific Junction location was lost due to the Missouri River flooding.



### Location-specific details.

Location	Initial SCN Population (eggs / 100 cc soil)	HG Type <sup>1</sup>	Planting Date	Harvest Date
Sutherland (NW)	2,768	7	May 9 <sup>th</sup>	October 11 <sup>th</sup>
Mason City (NC)	1,236	7	May 17 <sup>th</sup>	October 5 <sup>th</sup>
Lawler (NE)	1,310	2.5.7	May 13 <sup>th</sup>	October 4 <sup>th</sup>
Moorhead (WC)	2,257	2.7	May 5 <sup>th</sup>	October 3 <sup>rd</sup>
Story City (C)	607	2.5.7	May 11 <sup>th</sup>	October 6 <sup>th</sup>
Alburnett (EC)	747	5.7	May 18 <sup>th</sup>	October 15 <sup>th</sup>
Pacific Junction (SW)	265	lost to flood	May 6 <sup>th</sup>	lost to flood
Oskaloosa (SC)	1,790	2	May 4 <sup>th</sup>	October 10 <sup>th</sup>
Fruitland (SE)	2,845	0	May 12 <sup>th</sup>	October 14 <sup>th</sup>

<sup>1</sup> In the SCN HG type test results, “0” indicates less than 10% reproduction on all HG Type Test indicator lines, “2” indicates  $\geq 10\%$  reproduction on PI 88788, “5” indicates  $\geq 10\%$  reproduction on PI 209332, and “7” indicates  $\geq 10\%$  reproduction on PI 548316.

SCN-susceptible varieties also were planted in the experiments; two in the northern locations and three in the central and southern locations. 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 encourage to treat their seed with fungicide and insecticide. Seeds that were received untreated were treated with CruiserMaxx<sup>®</sup> by Iowa State University personnel. A complete treatment list is included at the back of the report. Preplant herbicide was applied to each location. The Lawler, Moorhead, Alburnett, and Fruitland locations were planted using “no-till” or “minimal till” methods; at all other locations, the seed bed was tilled prior to planting.

All plots were end trimmed to a length of 14 feet during September. Maturity notes were taken at one location in each district (northern, central, and southern), but for reference purposes, maturity dates 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 10 one-inch-diameter, six-to eight-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 higher soil pH and SCN population densities, all varieties also were field tested for tolerance to iron deficiency chlorosis (IDC). Each variety was planted in a hill plot consisting of five seeds per hill, with four replications per variety, at two high pH field locations. 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 1.5 and the highly susceptible variety scored an average of 2.0. The scores from these IDC field tests are listed in each location table in the report for reference.

## Data Presentation

In the report, soybean yield and SCN reproduction are displayed graphically in addition to the traditional tables. In the figures, yield is represented by the length of the gray bars and SCN reproduction is represented by the length of the blue bars. SCN reproduction was calculated by determining the reproductive factor (RF) for each variety. RF is calculated by dividing the average final SCN population density by the average initial SCN population density for each variety. What this means is that if a variety has an RF value of 5.0, the SCN population density 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 density for those plots at harvest was half the population density 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.

## Summary

The results of the experiments illustrate the benefits of utilizing SCN-resistant soybean varieties for management of this important soybean pest. At locations with the most significant SCN reproduction, 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 by soybean checkoff funds administered through the Iowa Soybean Association. Appreciation is expressed to the staff of the Iowa State University Muscatine Island Research and Demonstration Farm, especially Vince Lawson. Gratitude also is expressed to Josh Moermond of Sutherland, Mike Brown of Mason City, Donnie Blazek of Lawler, Chris Johnson and Kyle Jensen of Moorhead, Kevin Baldus of Story City, Dave Machacek of Alburnett, Chris Dashner of Pacific Junction, Mark Groenendyk of Oskaloosa and Tom Langan of Fruitland, for use of land for some of the experiments.

Table 1. Sutherland (NW Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
FS HiSOY®	HS 21A02	2.1	PI 88788	2.0	23	39.0	2.1	64.8	1	575	0.1
Legend Seeds	LR 20R20N	2.0	PI 88788	2.1	23	36.5	2.1	62.9	2	1,075	0.4
Syngenta	S20-Y2 Brand	2.0	PI 88788	1.6	22	37.5	2.6	62.2	3	350	0.1
ASGROW	AG2031	2.0	PI 88788	2.7	24	38.3	2.3	62.1	4	575	0.2
MERSCHMAN	NAVAHO 1220RR2Y	2.0	PI 88788	1.9	24	37.0	2.3	62.1	4	550	0.2
Jacobsen	J710NR2	2.0	PI 88788	2.0	25	33.0	2.1	61.1	6	375	0.2
Gold Country	2040	2.0	PI 88788	1.8	24	35.8	2.4	61.0	7	375	0.1
Mycogen Seeds	5N205R2	2.0	PI 88788	1.8	24	38.5	2.3	60.9	8	425	0.2
ASGROW	AG2232	2.2	PI 88788	2.5	27	40.3	2.4	60.5	9	275	0.1
Prairie Brand	PB-2042R2	2.0	PI 88788	2.0	24	37.3	2.3	60.3	10	200	0.1
Mycogen Seeds	5N210R2	2.1	PI 88788	1.6	27	34.8	2.4	59.5	11	725	0.3
Northstar Genetics	NS 1826NR2	1.8	PI 88788	1.5	27	39.3	2.4	59.4	12	400	0.2
LATHAM	L1884R2	1.8	PI 88788	1.7	19	36.5	2.8	59.3	13	350	0.1
Northstar Genetics	NS 1726NR2	1.7	PI 88788	1.7	22	31.5	2.3	59.2	14	675	0.2
Pioneer	92Y20	2.2	Peking	2.5	23	37.8	2.4	59.0	15	400	0.1
Legend Seeds	LR 19R22N	1.9	PI 88788	1.7	26	39.5	2.6	58.6	16	325	0.2
Kruger	K2-2102	2.1	PI 88788	2.1	26	34.8	2.8	58.5	17	350	0.1
Federal Hybrids	F202NRR2Y	2.0	PI 88788	2.0	24	34.0	2.3	58.4	18	400	0.2
NuTech - G2	7250	2.5	Peking	2.0	27	38.3	2.3	57.8	19	225	0.1
Dairyland Seed	DSR-2105/R2Y	2.1	PI 88788	1.7	26	33.5	2.5	57.4	20	425	0.1
Gold Country	2140	2.1	PI 88788	1.7	26	35.0	1.9	57.0	21	325	0.1
NuTech - G2	7208	2.0	PI 88788	1.7	25	35.3	2.1	56.9	22	150	0.1
Mycogen Seeds	5N180R2	1.8	PI 88788	1.8	21	32.5	2.3	56.8	23	100	0.0
Dairyland Seed	DSR-1808/R2Y	1.8	PI 88788	2.9	23	32.0	2.8	56.8	23	325	0.1
Pioneer	91Y92	1.9	PI 88788	2.0	19	35.3	2.4	56.5	25	400	0.1
Kruger	K2-2001	2.0	PI 88788	1.8	25	33.0	2.3	56.5	25	850	0.3
ASGROW	AG1832	1.8	PI 88788	1.6	26	37.0	3.0	56.5	25	400	0.1
Syngenta	S19-A6 Brand	1.9	PI 88788	2.3	21	36.3	2.1	56.4	28	275	0.1
Jacobsen	J791NR2	2.1	PI 88788	1.6	27	34.5	2.5	56.4	28	350	0.2
ASGROW	AG2330	2.3	PI 88788	1.9	29	36.8	3.4	55.8	30	800	0.3
Syngenta	S21-B1 Brand	2.1	PI 88788	2.6	25	34.0	2.9	55.6	31	425	0.1
Stine	22RC62	2.2	PI 88788	1.5	28	35.0	2.3	55.1	32	625	0.2
FS HiSOY®	HS 24A12	2.4	PI 88788	2.1	28	38.8	2.4	55.1	32	375	0.1
Pioneer	92Y11	2.1	Peking	2.8	26	35.3	1.9	55.1	32	500	0.2
MERSCHMAN	MARS 1219RR2Y	1.9	PI 88788	2.0	23	33.0	2.3	55.0	35	775	0.2
Viking	2174NRR	2.1	PI 88788	2.2	25	35.3	2.4	54.8	36	7,700	3.5
Syngenta	S17-G8 Brand	1.7	PI 88788	1.7	14	31.5	2.3	54.7	37	325	0.1
MERSCHMAN	MOHEGAN 1222RR2Y	2.2	PI 88788	1.5	28	36.0	2.9	54.6	38	675	0.2
ASGROW	AG1931	1.9	PI 88788	2.0	21	36.3	2.8	54.5	39	275	0.1
Champion	24R72N	2.4	PI 88788	2.1	30	38.8	3.0	54.4	40	550	0.2
LATHAM	L1800RX	1.8	PUSCN 14	2.1	23	30.8	2.5	54.3	41	1,850	0.7
Syngenta	S23-A8 Brand	2.3	PI 88788	1.9	24	34.3	2.8	54.3	41	500	0.1
Viking	2280R2N	2.2	PI 88788	1.9	29	35.3	2.4	54.1	43	725	0.3
Kruger	K2-2302	2.3	PI 88788	1.5	28	38.5	1.9	53.9	44	350	0.2
NuTech - G2	7226	2.2	Peking	1.5	27	37.0	2.3	53.4	45	375	0.1
LATHAM	L1783R2	1.7	PI 88788	2.3	24	33.5	2.1	52.7	46	200	0.1
Pioneer	91Y80	1.8	PI 88788	1.4	19	33.5	2.5	51.6	47	900	0.2
Prairie Brand	PB-2143R2	2.1	PI 88788	1.7	28	32.3	2.4	50.2	49	6,950	2.9
FS HiSOY®	HS 22A12	2.2	PI 88788	1.9	29	32.8	2.3	49.1	50	9,175	2.4
Prairie Brand	PB-2242R2	2.2	PI 88788	1.7	28	34.8	2.3	47.6	51	4,825	1.2
	Mean	2.0	-	1.9	25	35.5	2.4	56.8	-	1,022	0.4
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	3.0	0.5	3.7	-	1,772	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	2.5	0.4	3.1	-	1,485	-
<i>Syngenta</i>	<i>S24-J1 Brand</i>	2.4	<i>None</i>	2.3	29	32.0	2.5	50.7	48	4,350	1.4
<i>Pioneer</i>	<i>92Y31</i>	2.3	<i>None</i>	2.0	28	40.5	2.3	46.3	52	4,750	2.4
	Mean	2.4	-	2.2	29	36.3	2.4	48.5	-	4,550	1.9

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 2,968 eggs per 100 cc soil; HG Type 7 (1.2% on PI 88788, 0.5% on Peking)

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 1. Sutherland (NW Iowa) Glyphosate-resistant.

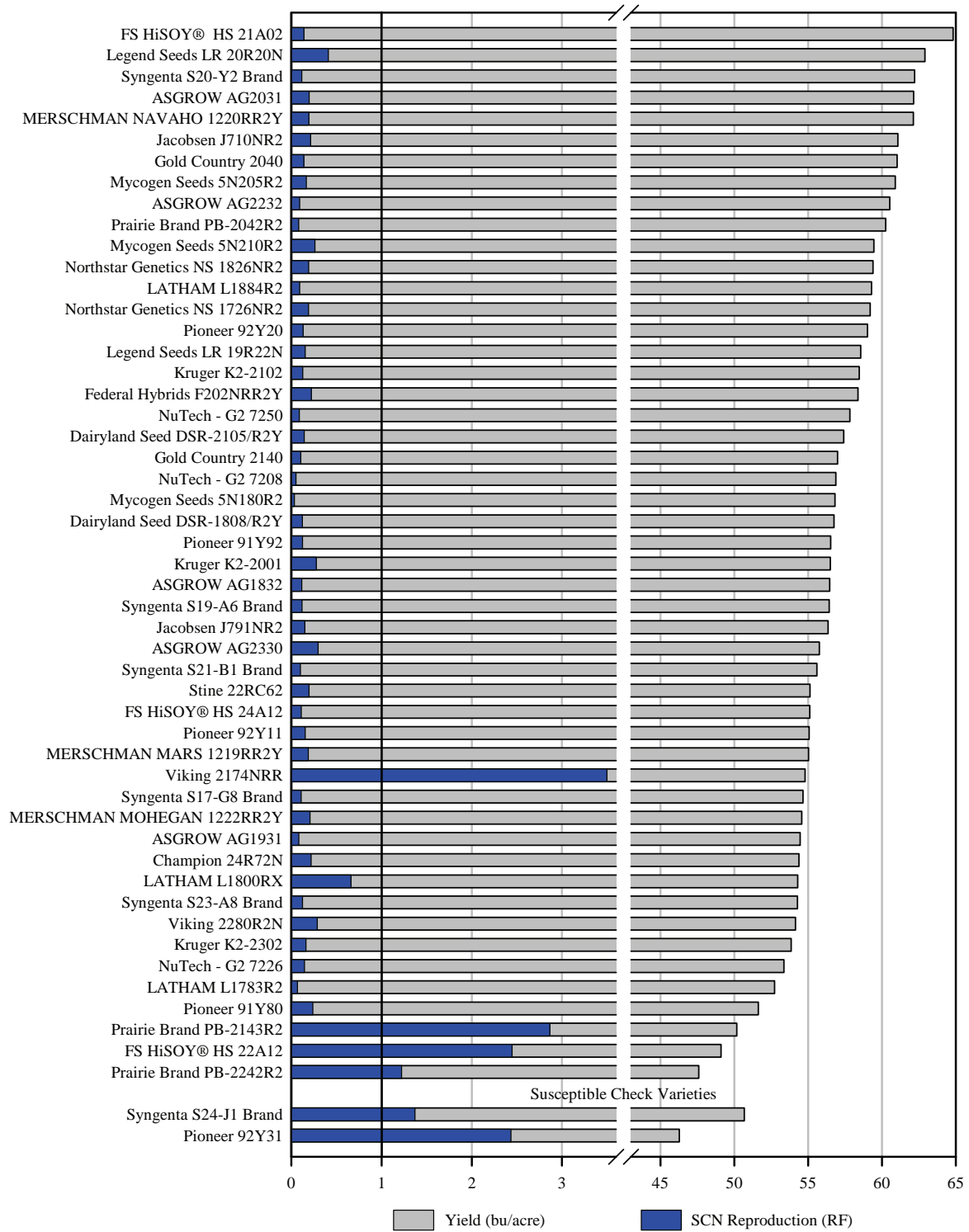


Table 2. Sutherland (NW Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Iowa State University	AR06-165086	2.0	PI 88788	2.3	24	31.5	2.1	51.6	1	225	0.2
Viking	L200N	2.0	PI 88788	1.9	29	36.0	2.6	49.4	2	400	0.5
Iowa State University	IAR2101 SCN	2.1	PI 507354 and PI 88788	3.1	24	35.0	2.6	48.8	3	450	0.3
Viking	1718N	1.7	PI 88788	1.8	22	32.5	2.6	45.7	4	11,275	7.3
	Mean	2.0	-	2.3	25	33.8	2.5	48.9	-	3,088	2.0
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	2.6	0.5	3.7	-	2,212	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	2.1	0.4	3.0	-	1,793	-
<i>Syngenta</i>	<i>S24-J1 Brand</i>	2.4	<i>None</i>	2.3	28	33.5	2.1	45.0	5	11,725	11.2
<i>Pioneer</i>	<i>92Y31</i>	2.3	<i>None</i>	2.0	28	38.0	2.3	42.0	6	8,200	8.6
	Mean	2.4	-	2.2	28	35.8	2.2	43.5	-	9,963	9.9

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 1,229 eggs per 100 cc soil; HG Type 7 (1.2% on PI 88788, 0.5% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 2. Sutherland (NW Iowa) Conventional.

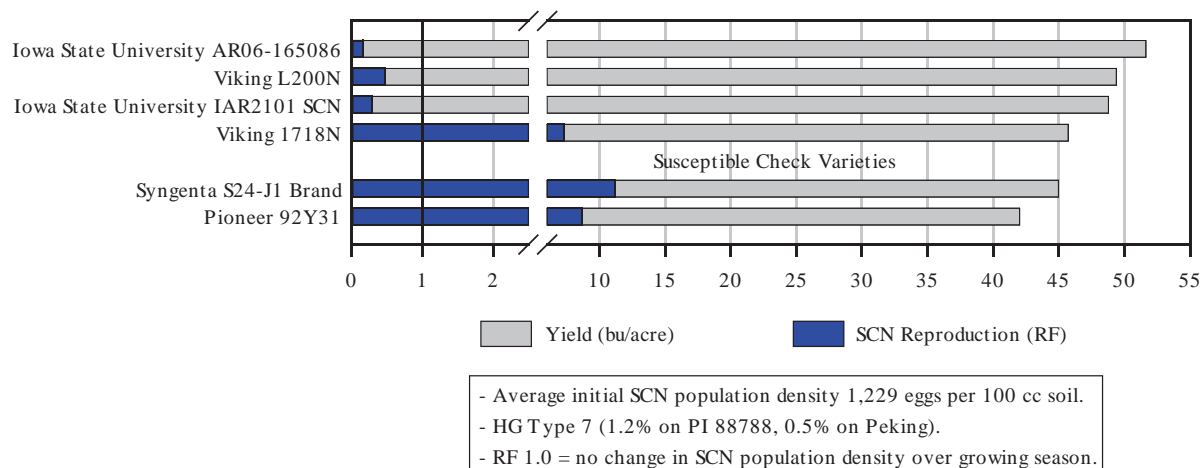


Table 3. Mason City (NC Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Gold Country	2040	2.0	PI 88788	1.8	24	45.8	2.5	56.4	1	1,025	1.2
FS HiSOY®	HS 21A02	2.1	PI 88788	2.0	23	44.0	2.1	56.0	2	950	0.5
Legend Seeds	LR 20R20N	2.0	PI 88788	2.1	23	44.8	2.4	55.4	3	1,225	2.3
ASGROW	AG2232	2.2	PI 88788	2.5	27	49.3	2.4	54.8	4	600	0.6
Syngenta	S20-Y2 Brand	2.0	PI 88788	1.6	22	45.0	2.1	54.3	5	975	0.6
Prairie Brand	PB-2042R2	2.0	PI 88788	2.0	24	44.3	2.0	53.9	6	1,000	0.7
MERSCHMAN	NAVAHO 1220RR2Y	2.0	PI 88788	1.9	24	43.8	2.3	53.5	7	1,025	1.7
ASGROW	AG2031	2.0	PI 88788	2.7	24	45.3	2.3	53.4	8	575	0.4
Northstar Genetics	NS 1826NR2	1.8	PI 88788	1.5	27	47.0	2.3	53.0	9	1,200	1.0
Mycogen Seeds	5N205R2	2.0	PI 88788	1.8	24	45.3	2.3	52.8	10	850	0.8
ASGROW	AG1931	1.9	PI 88788	2.0	21	43.5	2.3	52.3	11	575	0.4
Syngenta	S19-A6 Brand	1.9	PI 88788	2.3	21	41.8	2.5	51.8	12	975	0.7
Federal Hybrids	F202NRR2Y	2.0	PI 88788	2.0	24	43.3	2.4	51.8	12	850	0.7
Northstar Genetics	NS 1726NR2	1.7	PI 88788	1.7	22	44.0	2.1	51.5	14	750	0.7
Jacobsen	J710NR2	2.0	PI 88788	2.0	25	43.3	2.5	51.1	15	975	1.1
Jacobsen	J791NR2	2.1	PI 88788	1.6	27	42.8	2.4	50.8	16	1,625	2.0
NuTech - G2	7208	2.0	PI 88788	1.7	25	43.5	2.4	50.4	17	950	1.1
Dairyland Seed	DSR-2105/R2Y	2.1	PI 88788	1.7	26	44.8	2.1	50.2	18	1,175	1.1
Gold Country	2140	2.1	PI 88788	1.7	26	42.8	2.1	50.2	18	1,100	0.8
Mycogen Seeds	5N210R2	2.1	PI 88788	1.6	27	44.8	2.4	50.1	20	1,025	1.0
Kruger	K2-2001	2.0	PI 88788	1.8	25	44.0	2.0	50.1	20	1,450	3.4
Dairyland Seed	DSR-1808/R2Y	1.8	PI 88788	2.9	23	39.0	2.4	49.7	22	1,050	0.5
Legend Seeds	LR 19R22N	1.9	PI 88788	1.7	26	47.8	2.3	49.7	22	625	0.6
ASGROW	AG1832	1.8	PI 88788	1.6	26	45.0	2.9	49.1	24	775	0.5
Syngenta	S21-B1 Brand	2.1	PI 88788	2.6	25	43.5	2.3	49.0	25	600	0.4
NuTech - G2	7250	2.5	Peking	2.0	27	43.8	2.5	49.0	25	175	0.1
MERSCHMAN	MOHEGAN 1222RR2Y	2.2	PI 88788	1.5	28	44.5	2.3	48.9	27	1,025	1.1
Kruger	K2-2102	2.1	PI 88788	2.1	26	44.5	2.1	48.7	28	1,300	1.2
ASGROW	AG2330	2.3	PI 88788	1.9	29	42.0	3.0	48.7	28	1,550	2.3
LATHAM	L1884R2	1.8	PI 88788	1.7	19	43.8	2.1	48.4	30	525	0.4
LATHAM	L1783R2	1.7	PI 88788	2.3	24	38.8	1.9	48.3	31	1,000	0.8
MERSCHMAN	MARS 1219RR2Y	1.9	PI 88788	2.0	23	41.3	1.8	48.1	32	925	0.6
Viking	2174NRR	2.1	PI 88788	2.2	25	46.0	1.5	48.0	33	3,350	2.6
Pioneer	91Y92	1.9	PI 88788	2.0	19	42.0	2.6	47.9	34	550	0.7
Mycogen Seeds	5N180R2	1.8	PI 88788	1.8	21	39.5	2.3	47.8	35	825	0.6
Stine	22RC62	2.2	PI 88788	1.5	28	43.8	2.1	47.0	37	1,400	1.0
Pioneer	92Y20	2.2	Peking	2.5	23	42.8	2.5	46.1	38	125	0.2
Syngenta	S23-A8 Brand	2.3	PI 88788	1.9	24	41.8	2.4	45.7	39	850	0.9
Pioneer	91Y80	1.8	PI 88788	1.4	19	41.0	2.4	45.6	40	875	0.7
Syngenta	S17-G8 Brand	1.7	PI 88788	1.7	14	43.0	3.3	45.5	41	350	0.2
Champion	24R72N	2.4	PI 88788	2.1	30	44.0	3.0	45.4	42	875	0.6
Pioneer	92Y11	2.1	Peking	2.8	26	42.3	2.0	44.5	44	425	0.3
Prairie Brand	PB-2242R2	2.2	PI 88788	1.7	28	42.3	2.4	44.3	45	8,325	17.5
LATHAM	L1800RX	1.8	PUSCN 14	2.1	23	40.5	2.8	44.3	45	2,675	1.4
FS HiSOY®	HS 24A12	2.4	PI 88788	2.1	28	47.5	2.3	43.7	47	500	0.3
NuTech - G2	7226	2.2	Peking	1.5	27	40.3	2.4	43.5	48	1,325	0.7
FS HiSOY®	HS 22A12	2.2	PI 88788	1.9	29	41.5	2.9	43.4	49	9,350	6.4
Kruger	K2-2302	2.3	PI 88788	1.5	28	44.3	2.0	42.7	50	700	0.7
Prairie Brand	PB-2143R2	2.1	PI 88788	1.7	28	40.8	2.8	42.5	51	6,975	8.7
Viking	2280R2N	2.2	PI 88788	1.9	29	48.8	2.5	41.9	52	600	0.9
	Mean	2.0	-	1.9	25	43.6	2.3	49.0	-	1,410	1.5
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	3.1	0.4	3.2	-	1,670	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	2.6	0.3	2.7	-	1,399	-
<i>Syngenta</i>	<i>S24-J1 Brand</i>	<i>2.4</i>	<i>None</i>	<i>2.3</i>	<i>29</i>	<i>41.8</i>	<i>2.5</i>	<i>47.3</i>	<i>36</i>	<i>4,250</i>	<i>4.4</i>
<i>Pioneer</i>	<i>92Y31</i>	<i>2.3</i>	<i>None</i>	<i>2.0</i>	<i>28</i>	<i>46.5</i>	<i>2.0</i>	<i>45.1</i>	<i>43</i>	<i>2,025</i>	<i>1.8</i>
	Mean	2.4	-	2.2	29	44.1	2.3	46.2	-	3,138	3.1

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.

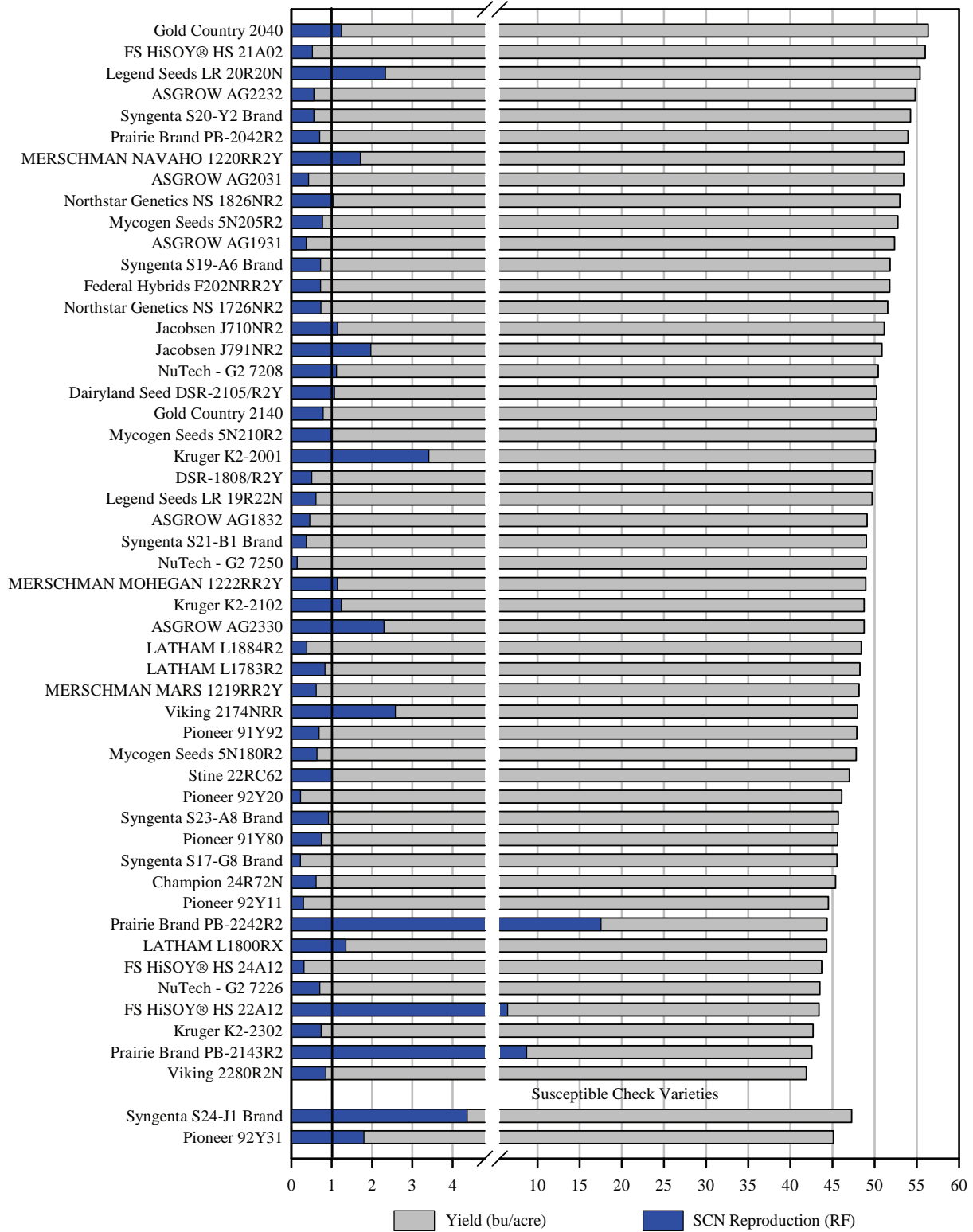
<sup>1</sup> Final SCN egg population density (eggs per 100 cc soil); there were no significant differences among initial SCN population densities; initial SCN population 1,196 eggs per 100 cc soil; HG Type 7 (6.1% on PI 88788, 0.1% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.



Figure 3. Mason City (NC Iowa) Glyphosate-resistant.



- Average initial SCN population density 1,196 eggs per 100 cc soil.  
 - HG Type 7 (6.1% on PI 88788, 0.1% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 4. Mason City (NC Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Iowa State University	IAR2101 SCN	2.1	PI 507354 and PI 88788	3.1	24	40.8	2.9	45.5	1	400	0.2
Viking	1718N	1.7	PI 88788	1.8	22	42.8	2.6	45.1	1	10,400	5.0
Iowa State University	AR06-165086	2.0	PI 88788	2.3	24	37.5	2.0	44.5	3	575	0.3
Viking	L200N	2.0	PI 88788	1.9	29	44.5	2.4	43.9	4	1,825	1.5
	Mean	2.0	-	2.3	25	41.4	2.5	44.7	-	3,300	1.8
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	4.3	0.5	NS	-	1,656	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	3.5	0.4	NS	-	1,342	-
<i>Syngenta</i>	<i>S24-J1 Brand</i>	2.4	<i>None</i>	2.3	28	37.0	2.0	43.6	5	11,875	8.2
<i>Pioneer</i>	<i>92Y31</i>	2.3	<i>None</i>	2.0	28	44.8	2.0	38.8	6	14,075	15.6
	Mean	2.4	-	2.2	28	40.9	2.0	41.2	-	12,975	11.9

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 1,550 eggs per 100 cc soil; HG Type 7 (6.1% on PI 88788, 0.1% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 4. Mason City (NC Iowa) Conventional.

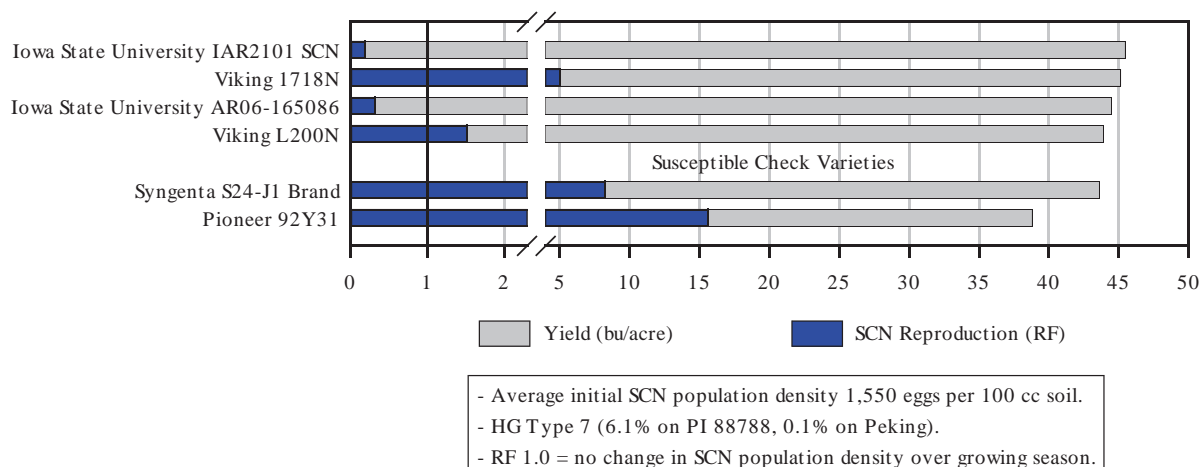


Table 5. Lawler (NE Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Federal Hybrids	F202NRR2Y	2.0	PI 88788	2.0	24	37.5	1.8	58.3	1	1,250	0.9
Dairyland Seed	DSR-1808/R2Y	1.8	PI 88788	2.9	23	37.5	1.8	57.7	2	1,400	1.1
ASGROW	AG2232	2.2	PI 88788	2.5	27	41.8	1.9	57.2	3	650	0.4
ASGROW	AG2031	2.0	PI 88788	2.7	24	40.3	1.9	56.5	4	875	0.6
FS HiSOY®	HS 21A02	2.1	PI 88788	2.0	23	38.5	1.8	56.4	5	2,175	1.8
Northstar Genetics	NS 1726NR2	1.7	PI 88788	1.7	22	37.0	1.5	56.4	5	850	1.1
MERSCHMAN	NAVAHO 1220RR2Y	2.0	PI 88788	1.9	24	38.5	1.8	56.1	7	1,300	1.3
LATHAM	L1783R2	1.7	PI 88788	2.3	24	36.0	1.5	55.9	8	1,500	1.3
Kruger	K2-2102	2.1	PI 88788	2.1	26	40.3	2.3	55.9	8	1,150	1.0
NuTech - G2	7208	2.0	PI 88788	1.7	25	40.0	1.9	55.4	10	625	0.4
Dairyland Seed	DSR-2105/R2Y	2.1	PI 88788	1.7	26	40.8	1.9	55.3	11	900	1.1
Jacobsen	J710NR2	2.0	PI 88788	2.0	25	36.5	1.9	55.2	12	1,650	0.9
Syngenta	S20-Y2 Brand	2.0	PI 88788	1.6	22	38.5	1.8	55.1	13	1,650	1.5
Northstar Genetics	NS 1826NR2	1.8	PI 88788	1.5	27	41.3	1.9	55.0	14	1,500	0.9
MERSCHMAN	MOHEGAN 1222RR2Y	2.2	PI 88788	1.5	28	40.8	2.1	55.0	14	1,300	1.4
LATHAM	L1884R2	1.8	PI 88788	1.7	19	39.5	2.1	54.3	16	675	0.8
Mycogen Seeds	5N205R2	2.0	PI 88788	1.8	24	40.0	1.8	54.3	16	350	0.1
Gold Country	2140	2.1	PI 88788	1.7	26	38.8	1.9	54.3	16	1,400	0.6
Prairie Brand	PB-2042R2	2.0	PI 88788	2.0	24	39.5	1.8	54.3	16	2,625	3.8
Gold Country	2040	2.0	PI 88788	1.8	24	39.0	1.9	53.7	20	1,000	1.1
Legend Seeds	LR 20R20N	2.0	PI 88788	2.1	23	39.8	1.5	53.5	21	2,600	1.5
FS HiSOY®	HS 24A12	2.4	PI 88788	2.1	28	39.8	1.9	53.4	22	500	0.6
Syngenta	S19-A6 Brand	1.9	PI 88788	2.3	21	40.5	1.8	53.4	22	1,225	1.3
NuTech - G2	7250	2.5	Peking	2.0	27	38.8	2.3	53.1	24	1,150	0.7
Mycogen Seeds	5N180R2	1.8	PI 88788	1.8	21	35.8	1.8	53.1	24	1,050	0.8
Stine	22RC62	2.2	PI 88788	1.5	28	38.8	2.0	53.1	24	1,050	0.8
Mycogen Seeds	5N210R2	2.1	PI 88788	1.6	27	40.3	1.9	53.1	24	1,525	1.9
ASGROW	AG1832	1.8	PI 88788	1.6	26	38.8	2.5	52.9	28	2,150	1.4
Kruger	K2-2001	2.0	PI 88788	1.8	25	41.3	1.8	52.7	29	1,700	1.2
MERSCHMAN	MARS 1219RR2Y	1.9	PI 88788	2.0	23	33.3	1.8	52.7	29	1,000	0.9
Jacobsen	J791NR2	2.1	PI 88788	1.6	27	41.3	2.0	52.6	31	700	0.8
Kruger	K2-2302	2.3	PI 88788	1.5	28	40.5	1.8	52.5	32	1,325	1.1
Legend Seeds	LR 19R22N	1.9	PI 88788	1.7	26	39.8	2.0	52.5	32	800	1.0
NuTech - G2	7226	2.2	Peking	1.5	27	40.8	1.9	52.5	32	700	0.6
Syngenta	S21-B1 Brand	2.1	PI 88788	2.6	25	36.3	2.4	51.6	35	600	0.5
Syngenta	S23-A8 Brand	2.3	PI 88788	1.9	24	38.0	2.3	51.4	36	1,175	0.8
Viking	2280R2N	2.2	PI 88788	1.9	29	40.0	2.4	50.9	37	1,100	0.9
ASGROW	AG1931	1.9	PI 88788	2.0	21	38.8	2.0	50.8	38	1,450	1.0
Pioneer	92Y11	2.1	Peking	2.8	26	40.0	2.0	50.8	38	400	0.2
Champion	24R72N	2.4	PI 88788	2.1	30	40.5	2.8	49.9	40	700	0.6
Pioneer	92Y20	2.2	Peking	2.5	23	39.3	2.3	49.8	41	200	0.2
Pioneer	91Y92	1.9	PI 88788	2.0	19	39.3	2.0	49.8	41	1,825	1.0
ASGROW	AG2330	2.3	PI 88788	1.9	29	39.8	2.8	49.4	43	1,725	1.2
Syngenta	S17-G8 Brand	1.7	PI 88788	1.7	14	36.5	2.1	49.1	44	1,900	2.1
Viking	2174NRR	2.1	PI 88788	2.2	25	39.5	1.6	49.0	45	12,150	10.3
Prairie Brand	PB-2143R2	2.1	PI 88788	1.7	28	35.3	1.6	48.2	46	12,475	8.0
FS HiSOY®	HS 22A12	2.2	PI 88788	1.9	29	35.8	1.8	48.0	47	11,275	10.5
Pioneer	91Y80	1.8	PI 88788	1.4	19	36.3	1.9	47.9	48	1,625	1.0
LATHAM	L1800RX	1.8	PUSCN 14	2.1	23	36.0	2.3	43.0	51	6,950	5.5
Prairie Brand	PB-2242R2	2.2	PI 88788	1.7	28	35.8	1.9	42.4	52	10,600	5.8
	Mean	2.0	-	1.9	25	38.8	1.9	52.7	-	2,169	1.7
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	3.4	0.4	3.7	-	3,405	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	2.8	0.3	3.1	-	2,852	-
<i>Pioneer</i>	<i>92Y31</i>	2.3	<i>None</i>	2.0	28	41.3	1.5	45.9	49	8,475	5.7
<i>Syngenta</i>	<i>S24-J1 Brand</i>	2.4	<i>None</i>	2.3	29	36.8	2.3	44.2	50	9,275	9.0
	Mean	2.4	-	2.2	29	39.0	1.9	45.1	-	8,875	7.3

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

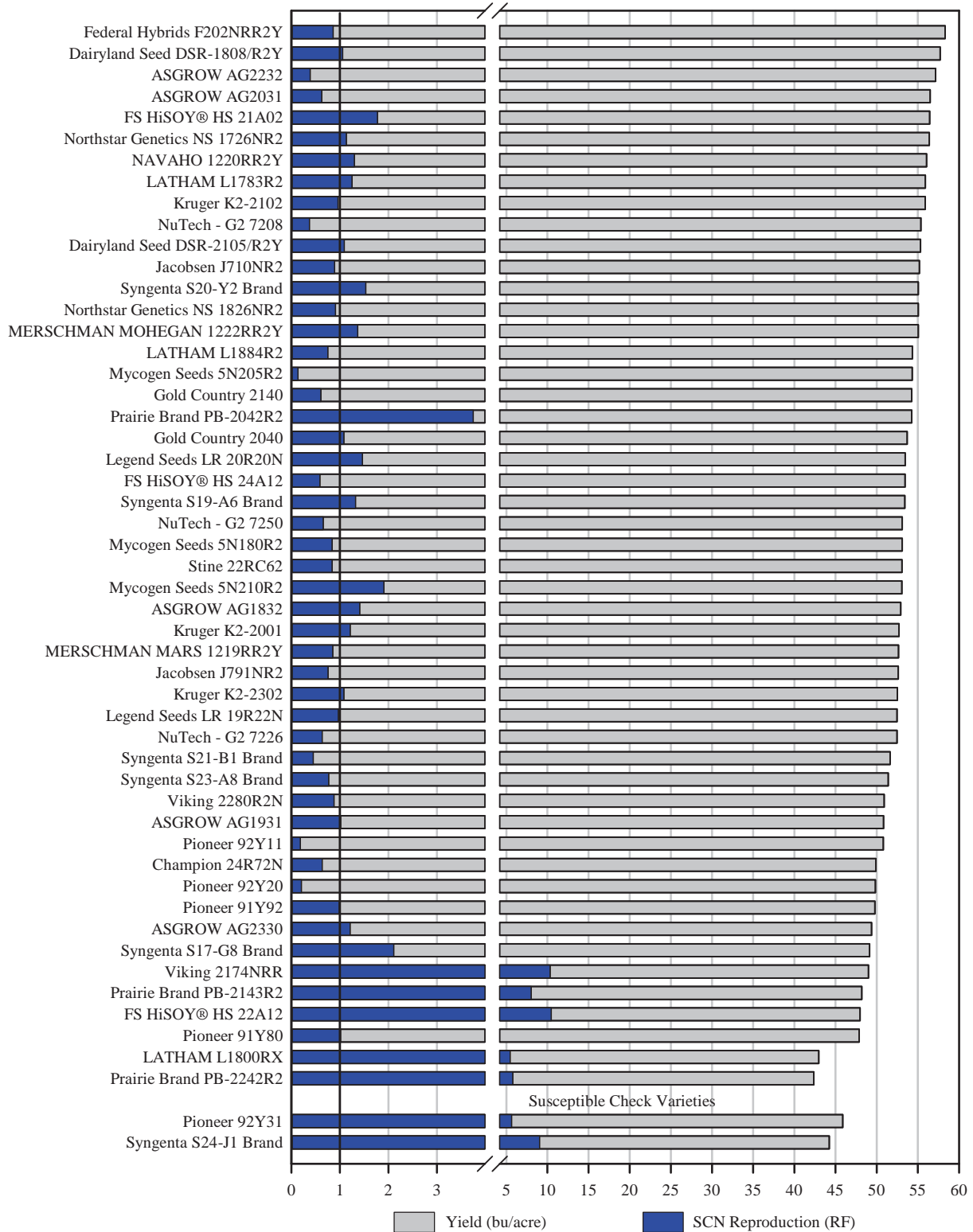
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 1,324 eggs per 100 cc soil; HG Type 2.5.7 (14.4% on PI 88788, 0.8% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 5. Lawler (NE Iowa) Glyphosate-resistant.



- Average initial SCN population density 1,324 eggs per 100 cc soil.  
 - HG Type 2.5.7 (14.4% on PI 88788, 0.8% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 6. Lawler (NE Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Viking	L200N	2.0	PI 88788	1.9	29	40.8	2.6	48.5	1	2,300	1.8
Viking	1718N	1.7	PI 88788	1.8	22	39.0	2.5	46.5	2	12,450	12.5
Iowa State University	AR06-165086	2.0	PI 88788	2.3	24	37.0	2.4	46.1	3	1,700	1.9
Iowa State University	IAR2101 SCN	2.1	PI 507354 and PI 88788	3.1	24	43.0	2.9	44.5	4	1,950	1.0
	Mean	2.0	-	2.3	25	39.9	2.6	46.4	-	4,600	4.3
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	4.1	0.3	NS	-	NS	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	3.3	0.3	NS	-	7,635	-
<i>Pioneer</i>	<i>92Y31</i>	2.3	<i>None</i>	2.0	28	41.3	1.9	44.3	5	8,450	6.5
<i>Syngenta</i>	<i>S24-J1 Brand</i>	2.4	<i>None</i>	2.3	28	37.8	2.3	44.1	6	10,900	12.1
	Mean	2.4	-	2.2	28	39.5	2.1	44.2	-	9,675	9.3

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 1,207 eggs per 100 cc soil; HG Type 2.5.7 (14.4% on PI 88788, 0.8% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 6. Lawler (NE Iowa) Conventional.

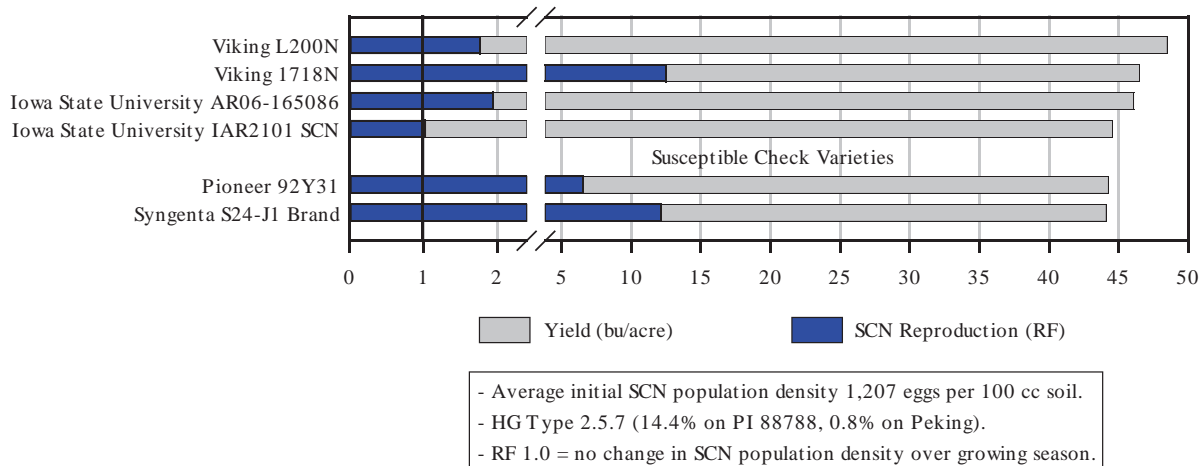


Table 7. Moorhead (WC Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Pioneer	92Y51	2.5	PI 88788	2.2	22	40.3	2.4	44.7	1	725	0.3
Pioneer	92Y53	2.5	Peking	2.3	22	39.5	2.1	43.2	2	500	0.4
NuTech - G2	7250	2.5	Peking	2.0	19	37.8	2.8	42.5	3	425	0.2
ASGROW	AG2731	2.7	PI 88788	2.2	21	41.5	2.5	41.5	4	925	0.3
NuTech - G2	7270	2.7	PI 88788	1.9	26	41.0	2.3	41.1	5	1,250	0.5
Pioneer	92Y72	2.7	PI 88788	2.0	27	39.5	2.0	40.8	6	525	0.2
Excel	8236NRR	2.3	PI 88788	2.3	21	36.0	2.4	38.8	7	3,700	1.6
Stine	23RA22	2.3	PI 88788	2.0	23	40.0	3.1	38.7	8	575	0.2
Federal Hybrids	F240NRR2Y	2.4	PI 88788	1.8	26	38.3	3.0	38.6	9	1,225	0.6
NuTech - G2	7282	2.8	PI 88788	1.9	30	43.5	1.9	38.4	10	1,100	0.5
ASGROW	AG2831	2.8	PI 88788	2.0	26	42.3	2.9	38.4	10	900	0.7
MERSCHMAN	SHAWNEE 1226RR2Y	2.6	PI 88788	1.8	23	37.5	3.1	38.2	12	575	0.3
Prairie Brand	PB-2544R2	2.5	PI 88788	1.7	21	41.3	3.1	38.0	13	1,750	0.7
Kruger	K2-2904	2.9	PI 88788	1.8	29	41.5	2.9	37.8	14	1,025	0.4
Syngenta	S25-T8 Brand	2.5	PI 88788	2.0	23	38.3	2.4	37.7	15	875	0.4
Champion	25R82N	2.5	PI 88788	1.8	21	43.3	3.0	37.7	15	2,250	0.6
Pioneer	92Y60	2.6	PI 88788	1.8	26	36.0	2.3	37.6	17	550	0.1
Pioneer	92Y80	2.8	PI 88788	2.4	27	41.0	2.8	37.4	18	350	0.1
Prairie Brand	PB-2903R2	2.9	PI 88788	1.9	30	45.5	2.9	36.9	19	775	0.3
Syngenta	S27-C4 Brand	2.7	PI 88788	2.3	27	41.3	2.5	36.9	19	700	0.3
Federal Hybrids	F252NRR2Y	2.5	PI 88788	1.7	20	43.5	3.1	36.7	22	1,550	0.8
Stine	24RB00	2.4	PI 88788	2.5	21	38.8	2.8	36.7	22	2,625	1.7
NuTech - G2	7262	2.6	Peking	2.3	24	37.0	2.5	36.5	24	700	0.2
LATHAM	L2983R2	2.9	PI 88788	2.0	30	41.8	2.9	36.5	24	1,100	0.7
Syngenta	S30-F5 Brand	3.0	PI 88788	2.3	29	47.3	2.6	36.5	24	500	0.4
Jacobsen	J715NR2	2.5	PI 88788	1.6	20	43.8	3.3	36.2	27	2,675	1.6
Dairyland Seed	DSR-2880/R2Y	2.8	PI 88788	2.7	29	40.0	2.6	36.2	27	625	0.4
FS HiSOY®	HS 28A02	2.8	PI 88788	2.5	28	41.8	3.1	36.0	29	925	0.5
Champion	24R72N	2.4	PI 88788	2.1	23	38.5	3.1	36.0	29	1,000	0.4
Mycogen Seeds	5N284R2	2.8	PI 88788	2.2	29	43.5	2.6	35.9	31	700	0.3
Syngenta	S29-W7 Brand	2.9	PI 88788	2.5	27	41.8	2.6	35.9	31	800	0.5
LATHAM	L2711R2X	2.7	PUSCN 14	1.9	23	50.3	3.1	35.8	33	850	0.5
Prairie Brand	PB-2743R2	2.8	PI 88788	2.8	29	42.3	2.9	35.7	34	650	0.3
Kruger	K2-2703	2.7	PI 88788	1.8	29	43.8	2.8	35.5	35	900	0.5
Jacobsen	J808NR2	2.8	PI 88788	2.0	28	40.0	2.9	35.3	36	975	0.4
FS HiSOY®	HS 29A12	2.9	PI 88788	1.8	30	43.5	2.9	35.2	37	725	0.4
FS HiSOY®	HS 27A12	2.7	PI 88788	2.4	25	42.5	2.9	34.9	38	950	0.3
ASGROW	AG2632	2.6	PI 88788	1.8	29	42.8	2.5	34.5	39	575	0.3
ASGROW	AG3030	3.0	PI 88788	2.2	29	42.8	2.9	33.9	40	775	0.5
ASGROW	AG2931	2.9	PI 88788	2.1	29	43.8	3.0	33.8	41	875	0.5
MERSCHMAN	MOHAWK 1128RR2Y	2.8	PI 88788	1.5	29	43.0	3.1	32.9	43	700	0.3
Stine	27RA20	2.7	PI 88788	2.7	30	46.3	3.1	32.5	44	550	0.4
Willcross	RY2321N	3.2	PI 88788	2.5	31	46.5	2.8	32.3	45	925	0.4
Legend Seeds	LR 25R21N	2.5	PI 88788	1.6	29	41.0	3.0	31.9	46	1,025	0.5
LATHAM	L2784R2	2.7	PI 88788	2.0	28	44.8	2.8	31.4	47	3,175	2.0
MERSCHMAN	ARTHUR 1230RR2Y	3.0	PI 88788	2.4	31	45.8	2.6	30.3	49	575	0.3
Mavrick	9302RY	3.0	PI 88788	2.0	31	47.0	3.0	30.2	50	800	0.3
Dairyland Seed	DSR-2995/R2Y	2.9	PI 88788	1.9	32	46.8	2.8	30.0	51	1,125	0.6
Mycogen Seeds	5N304R2	3.0	PI 88788	1.9	32	49.0	2.8	29.4	52	875	0.5
Syngenta	S31-L7 Brand	3.1	PI 88788	2.0	31	46.0	2.9	29.3	53	900	0.3
	Mean	2.7	-	2.1	27	42.2	2.8	36.2	-	1,037	0.5
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	4.4	0.4	3.6	-	1,069	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	3.6	0.4	3.0	-	895	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	21	38.0	2.5	36.9	19	2,575	0.7
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	26	42.0	2.6	33.2	42	3,025	1.3
<i>Pioneer</i>	<i>92Y82</i>	2.8	<i>None</i>	1.8	26	43.8	2.1	31.4	47	2,750	1.2
	Mean	2.7	-	2.1	24	41.3	2.4	33.8	-	2,783	1.1

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

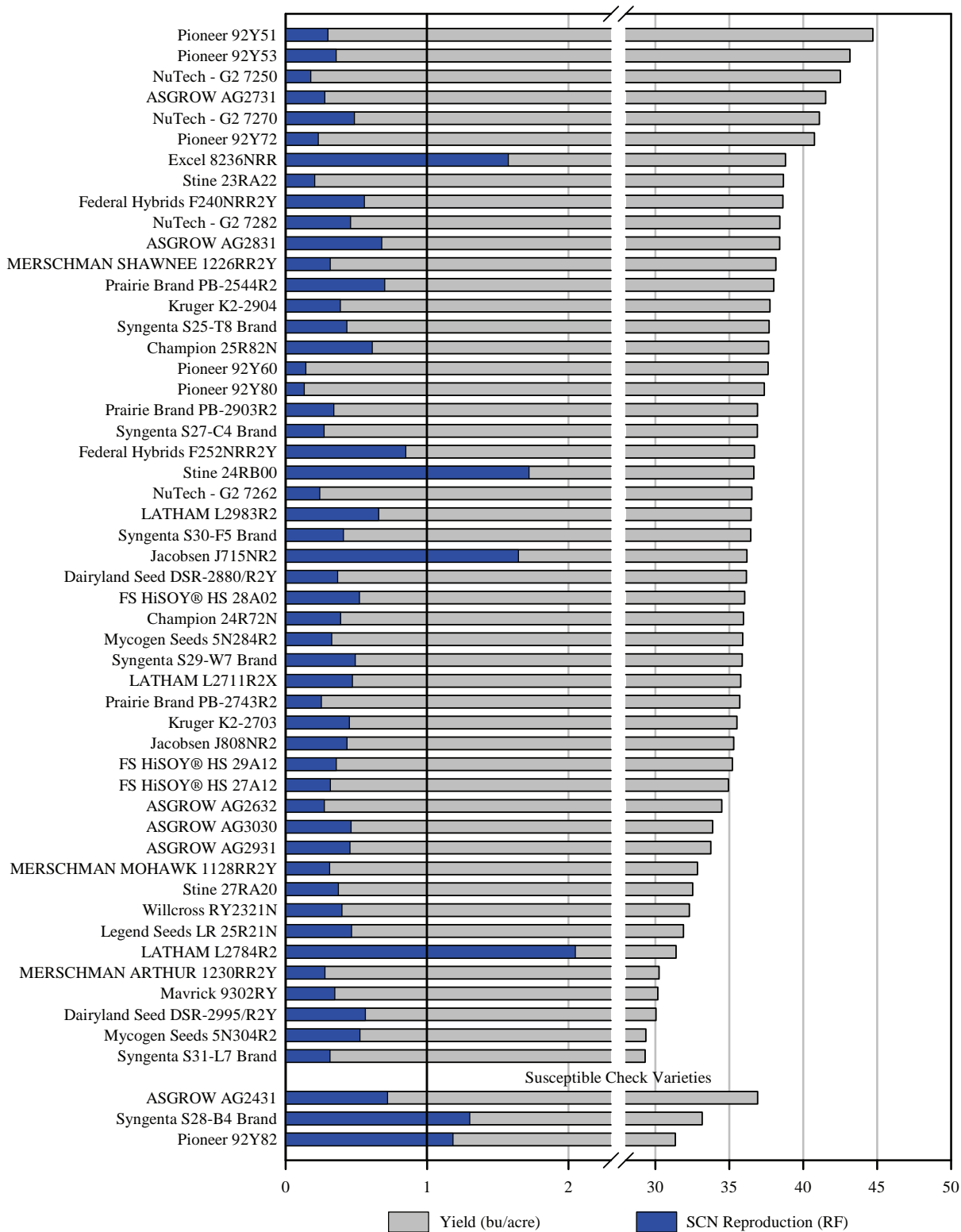
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 2,236 eggs per 100 cc soil; HG Type 2.7 (11.1% on PI 88788, 1.9% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 7. Moorhead (WC Iowa) Glyphosate-resistant.



- Average initial SCN population density 2,236 eggs per 100 cc soil.  
 - HG Type 2.7 (11.1% on PI 88788, 1.9% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 8. Moorhead (WC Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
eMerge	289.TC	2.8	PI 88788	2.1	30	42.8	3.0	30.1	3	650	0.3
Mavrick	0307LL	3.0	PI 88788	2.3	29	40.0	2.4	29.5	5	1,375	0.6
Mavrick	0287LL	2.8	PI 88788	2.7	33	42.3	2.3	27.0	6	1,425	0.8
MERSCHMAN	MOHAVE 1128LL	2.8	PI 88788	2.4	33	41.3	2.6	26.9	7	1,275	0.4
	Mean	2.9	-	2.4	31	41.6	2.6	28.4	-	1,181	0.5
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	0.5	NS	-	NS	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	NS	0.4	2.5	-	NS	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	26	36.0	2.3	34.0	1	2,275	1.2
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	29	40.3	2.5	31.5	2	1,225	0.4
<i>Pioneer</i>	92Y82	2.8	<i>None</i>	1.8	31	43.8	1.8	29.9	4	2,575	1.2
	Mean	2.7	-	2.1	29	40.0	2.2	31.8	-	2,025	0.9

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

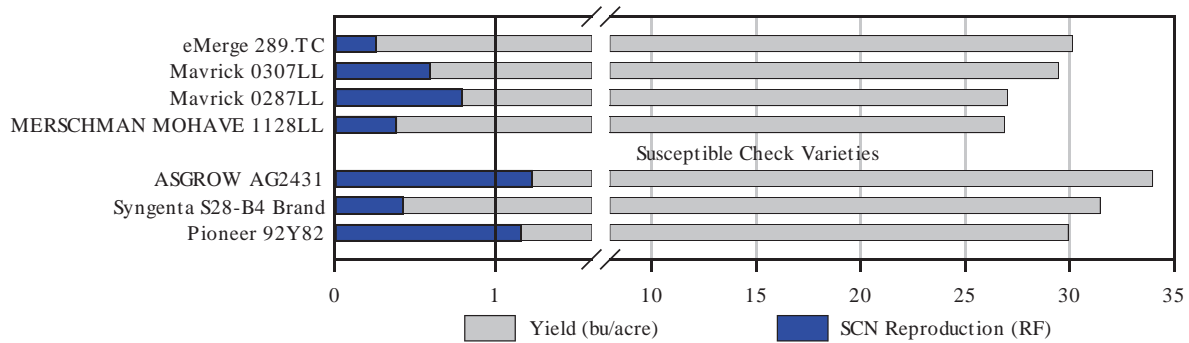
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 2,421 eggs per 100 cc soil; HG Type 2.7 (11.1% on PI 88788, 1.9% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 8. Moorhead (WC Iowa) Conventional.



- Average initial SCN population density 2,421 eggs per 100 cc soil.
- HG Type 2.7 (11.1% on PI 88788, 1.9% on Peking).
- RF 1.0 = no change in SCN population density over growing season.



Table 9. Story City (C Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
NuTech - G2	7262	2.6	Peking	2.3	24	35.5	1.9	50.6	1	1,625	2.8
Pioneer	92Y53	2.5	Peking	2.3	22	38.0	1.8	50.6	1	2,625	5.8
ASGROW	AG2831	2.8	PI 88788	2.0	26	40.8	2.1	50.4	3	5,950	9.5
ASGROW	AG2731	2.7	PI 88788	2.2	21	40.3	1.6	49.4	4	4,225	8.9
Syngenta	S25-T8 Brand	2.5	PI 88788	2.0	23	37.8	1.9	48.4	5	4,600	5.4
Pioneer	92Y60	2.6	PI 88788	1.8	26	35.8	1.5	48.3	7	7,725	14.7
Champion	24R72N	2.4	PI 88788	2.1	23	39.8	2.5	47.6	8	5,875	18.1
Pioneer	92Y80	2.8	PI 88788	2.4	27	39.5	1.9	47.4	9	4,000	8.0
FS HiSOY®	HS 28A02	2.8	PI 88788	2.5	28	42.3	1.6	47.0	10	6,725	8.7
FS HiSOY®	HS 27A12	2.7	PI 88788	2.4	25	40.0	2.0	46.9	11	4,100	6.8
Pioneer	92Y51	2.5	PI 88788	2.2	22	39.5	1.6	46.9	11	5,100	7.8
NuTech - G2	7270	2.7	PI 88788	1.9	26	38.5	1.9	46.9	11	7,875	18.5
NuTech - G2	7282	2.8	PI 88788	1.9	30	42.5	1.6	46.8	14	8,725	17.5
LATHAM	L2983R2	2.9	PI 88788	2.0	30	42.3	1.9	46.8	14	5,675	11.4
Kruger	K2-2703	2.7	PI 88788	1.8	29	43.3	2.1	46.6	16	4,850	8.4
Stine	23RA22	2.3	PI 88788	2.0	23	39.3	1.9	46.4	17	4,650	7.4
Federal Hybrids	F240NRR2Y	2.4	PI 88788	1.8	26	42.8	2.0	46.3	18	7,300	10.8
Prairie Brand	PB-2743R2	2.8	PI 88788	2.8	29	39.0	1.6	46.0	19	4,925	7.0
Dairyland Seed	DSR-2880/R2Y	2.8	PI 88788	2.7	29	41.5	1.4	46.0	19	5,800	9.3
ASGROW	AG3030	3.0	PI 88788	2.2	29	40.3	2.0	45.8	21	2,875	4.1
FS HiSOY®	HS 29A12	2.9	PI 88788	1.8	30	42.3	1.6	45.8	21	7,650	23.5
NuTech - G2	7250	2.5	Peking	2.0	19	36.5	1.9	45.6	23	1,500	1.5
Jacobsen	J715NR2	2.5	PI 88788	1.6	20	38.3	2.0	45.5	24	16,775	28.0
Champion	25R82N	2.5	PI 88788	1.8	21	38.0	1.9	45.2	25	11,825	24.9
Prairie Brand	PB-2903R2	2.9	PI 88788	1.9	30	41.8	1.9	45.2	25	6,225	14.6
MERSCHMAN	SHAWNEE 1226RR2Y	2.6	PI 88788	1.8	23	39.5	2.0	45.2	25	4,200	12.0
Pioneer	92Y72	2.7	PI 88788	2.0	27	37.8	2.0	45.1	28	4,675	8.5
ASGROW	AG2632	2.6	PI 88788	1.8	29	38.0	1.5	45.1	29	8,300	12.8
Mycogen Seeds	5N284R2	2.8	PI 88788	2.2	29	39.8	1.5	44.7	30	11,325	16.8
Kruger	K2-2904	2.9	PI 88788	1.8	30	41.3	1.9	44.6	31	4,850	8.8
Excel	8236NRR	2.3	PI 88788	2.3	21	34.3	1.5	44.5	32	12,200	13.6
Syngenta	S29-W7 Brand	2.9	PI 88788	2.5	27	40.8	1.9	44.4	33	8,300	11.9
LATHAM	L2784R2	2.7	PI 88788	2.0	28	41.5	1.5	44.2	34	15,550	19.4
Syngenta	S27-C4 Brand	2.7	PI 88788	2.3	27	38.3	2.1	44.1	35	5,925	4.2
Jacobsen	J808NR2	2.8	PI 88788	2.0	28	41.3	2.0	43.8	36	5,350	5.8
ASGROW	AG2931	2.9	PI 88788	2.1	29	42.5	2.0	43.8	36	5,925	9.5
Federal Hybrids	F252NRR2Y	2.5	PI 88788	1.7	20	35.5	2.0	43.4	38	20,225	19.7
Syngenta	S30-F5 Brand	3.0	PI 88788	2.3	29	41.5	1.9	43.0	39	7,300	22.5
Prairie Brand	PB-2544R2	2.5	PI 88788	1.7	21	38.5	2.1	42.9	40	23,725	27.9
MERSCHMAN	MOHAWK 1128RR2Y	2.8	PI 88788	1.5	29	42.3	2.0	42.7	41	3,850	7.7
Stine	24RB00	2.4	PI 88788	2.5	21	33.8	1.6	42.7	41	13,200	16.0
LATHAM	L2711R2X	2.7	PUSCN 14	1.9	23	46.8	2.0	42.3	43	5,575	22.3
Willcross	RY2321N	3.2	PI 88788	2.5	31	44.0	2.0	41.9	44	7,650	13.3
Syngenta	S31-L7 Brand	3.1	PI 88788	2.0	31	39.8	2.1	41.8	45	7,525	18.8
Stine	27RA20	2.7	PI 88788	2.7	30	42.8	1.8	41.8	45	6,225	13.1
MERSCHMAN	ARTHUR 1230RR2Y	3.0	PI 88788	2.4	31	45.0	2.0	40.7	48	7,675	11.4
Dairyland Seed	DSR-2995/R2Y	2.9	PI 88788	1.9	32	44.3	2.0	40.7	48	6,475	10.4
Mavrick	9302RY	3.0	PI 88788	2.0	31	41.3	2.0	40.5	50	7,100	8.6
Legend Seeds	LR 25R21N	2.5	PI 88788	1.6	29	41.8	2.3	40.4	51	3,675	6.1
Mycogen Seeds	5N304R2	3.0	PI 88788	1.9	32	46.0	2.1	39.6	53	10,325	15.3
Mean		2.7	-	2.1	27	40.3	1.9	45.0	-	7,327	12.4
LSD <sup>3</sup> (P = 0.05)		-	-	-	-	3.2	0.3	4.2	-	6,851	-
LSD <sup>3</sup> (P = 0.10)		-	-	-	-	2.7	0.2	3.5	-	5,738	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	21	35.8	1.8	48.4	5	19,150	76.6
<i>Pioneer</i>	<i>92Y82</i>	2.8	<i>None</i>	1.8	26	40.3	1.6	41.7	47	19,175	45.1
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	26	37.5	1.6	40.0	52	17,375	23.2
Mean		2.7	-	2.1	24	37.8	1.7	43.4	-	18,567	48.3

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

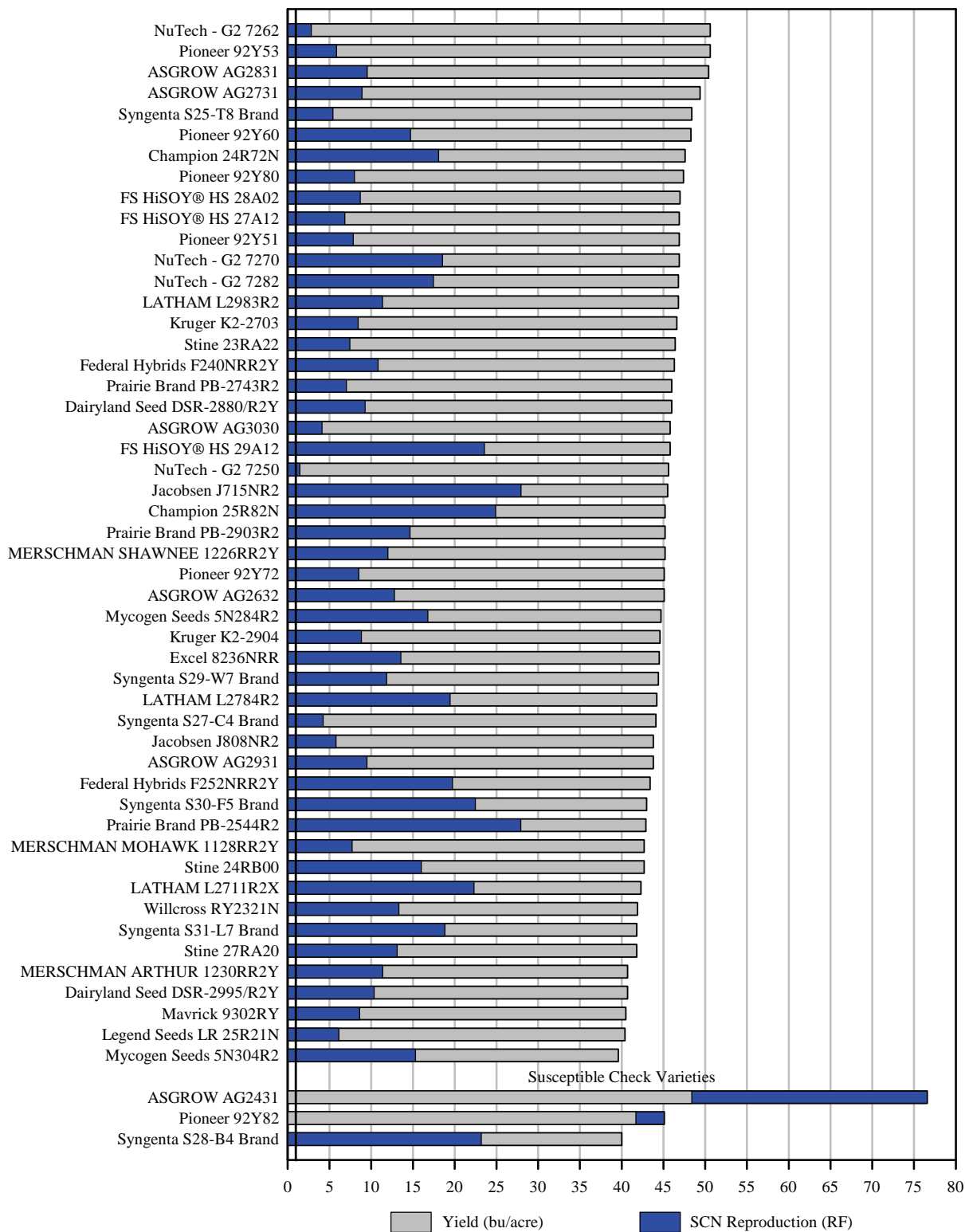
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 613 eggs per 100 cc soil; HG Type 2.5.7 (31.8% on PI 88788, 1.0% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 9. Story City (C Iowa) Glyphosate-resistant.



- Average initial SCN population density 613 eggs per 100 cc soil.  
 - HG Type 2.5.7 (31.8% on PI 88788, 1.0% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 10. Story City (C Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
eMerge	289.TC	2.8	PI 88788	2.1	30	44.5	2.5	43.5	1	4,225	12.1
MERSCHMAN	MOHAVE 1128LL	2.8	PI 88788	2.4	33	42.5	1.8	34.0	5	17,800	21.6
Mavrick	0307LL	3.0	PI 88788	2.3	29	42.3	1.9	33.5	6	18,350	24.5
Mavrick	0287LL	2.8	PI 88788	2.7	33	44.3	1.9	33.3	7	14,375	33.8
	Mean	2.9	-	2.4	31	43.4	2.0	36.1	-	13,688	23.0
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	0.4	5.1	-	NS	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	NS	0.3	4.1	-	9,163	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	26	36.0	1.6	40.9	2	12,975	27.3
<i>Pioneer</i>	<i>92Y82</i>	2.8	<i>None</i>	1.8	31	42.8	1.5	38.7	3	14,350	33.8
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	29	37.8	1.9	36.1	4	20,025	27.6
	Mean	2.7	-	2.1	29	38.8	1.7	38.6	-	15,783	29.6

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 569 eggs per 100 cc soil; HG Type 2.5.7 (31.8% on PI 88788, 1.0% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 10. Story City (C Iowa) Conventional.

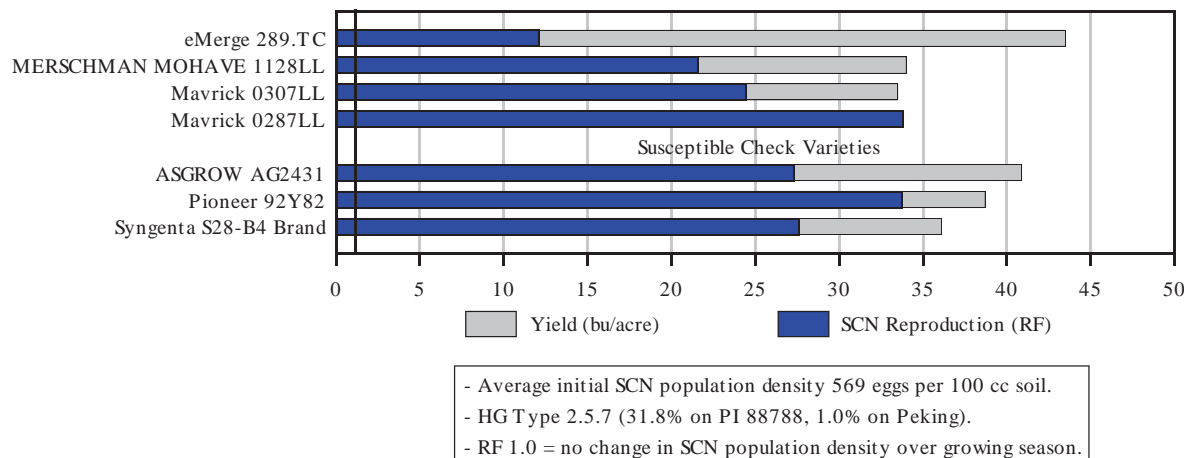


Table 11. Alburnett (EC Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
NuTech - G2	7270	2.7	PI 88788	1.9	26	38.0	2.0	56.5	1	475	1.9
ASGROW	AG2632	2.6	PI 88788	1.8	29	38.5	1.9	56.0	2	300	0.7
Pioneer	92Y80	2.8	PI 88788	2.4	27	41.8	2.1	55.4	3	225	0.4
Jacobsen	J715NR2	2.5	PI 88788	1.6	20	40.3	2.8	54.7	4	7,050	10.1
Stine	24RB00	2.4	PI 88788	2.5	21	35.5	1.8	54.7	4	5,725	10.9
Syngenta	S25-T8 Brand	2.5	PI 88788	2.0	23	37.0	2.0	54.1	6	200	0.5
Pioneer	92Y51	2.5	PI 88788	2.2	22	40.5	2.0	54.1	6	850	2.3
FS HiSOY®	HS 29A12	2.9	PI 88788	1.8	30	41.3	2.0	53.8	8	400	0.8
Champion	25R82N	2.5	PI 88788	1.8	21	40.8	2.5	53.2	9	5,025	6.7
FS HiSOY®	HS 28A02	2.8	PI 88788	2.5	28	38.8	2.0	53.1	10	525	0.9
ASGROW	AG2731	2.7	PI 88788	2.2	21	40.5	1.5	52.9	11	275	2.2
FS HiSOY®	HS 27A12	2.7	PI 88788	2.4	25	39.8	2.1	52.8	12	350	0.5
Kruger	K2-2904	2.9	PI 88788	1.8	30	41.5	2.1	52.7	13	550	1.0
Mycogen Seeds	5N284R2	2.8	PI 88788	2.2	29	40.5	1.9	52.4	14	475	0.6
Pioneer	92Y72	2.7	PI 88788	2.0	27	34.3	1.9	52.2	15	300	0.7
Stine	23RA22	2.3	PI 88788	2.0	23	38.8	2.0	52.1	16	775	0.8
Syngenta	S30-F5 Brand	3.0	PI 88788	2.3	29	45.3	2.5	52.0	17	1,100	1.1
Prairie Brand	PB-2544R2	2.5	PI 88788	1.7	21	39.0	2.6	51.8	18	5,750	3.7
NuTech - G2	7250	2.5	Peking	2.0	19	37.0	1.8	51.7	19	75	0.1
ASGROW	AG2831	2.8	PI 88788	2.0	26	40.3	2.0	51.7	19	875	1.5
LATHAM	L2983R2	2.9	PI 88788	2.0	30	41.3	2.0	51.6	21	1,300	1.2
Federal Hybrids	F252NRR2Y	2.5	PI 88788	1.7	20	40.3	2.6	51.6	21	12,975	18.5
Pioneer	92Y53	2.5	Peking	2.3	22	39.5	2.0	51.5	24	325	0.6
Federal Hybrids	F240NRR2Y	2.4	PI 88788	1.8	26	37.0	2.0	51.3	25	300	0.4
NuTech - G2	7262	2.6	Peking	2.3	24	33.3	1.9	51.2	26	275	0.3
Willcross	RY2321N	3.2	PI 88788	2.5	31	41.8	2.0	51.1	27	1,675	2.1
Kruger	K2-2703	2.7	PI 88788	1.8	29	39.0	2.1	51.0	28	250	0.2
Excel	8236NRR	2.3	PI 88788	2.3	21	32.3	1.8	50.9	29	5,475	21.9
LATHAM	L2711R2X	2.7	PUSCN 14	1.9	23	46.0	2.1	50.7	30	1,375	2.6
Prairie Brand	PB-2743R2	2.8	PI 88788	2.8	29	40.3	1.9	50.7	30	500	0.4
Champion	24R72N	2.4	PI 88788	2.1	23	40.5	2.3	50.6	32	150	0.7
Dairyland Seed	DSR-2880/R2Y	2.8	PI 88788	2.7	29	40.3	2.0	50.6	32	475	0.7
Pioneer	92Y60	2.6	PI 88788	1.8	26	34.0	1.5	50.5	34	650	1.0
Syngenta	S27-C4 Brand	2.7	PI 88788	2.3	27	36.3	2.3	50.3	35	325	0.5
Prairie Brand	PB-2903R2	2.9	PI 88788	1.9	30	39.3	1.9	50.3	35	750	0.8
Jacobsen	J808NR2	2.8	PI 88788	2.0	28	38.0	2.0	50.2	37	700	1.9
Stine	27RA20	2.7	PI 88788	2.7	30	40.8	2.0	50.2	37	200	0.3
NuTech - G2	7282	2.8	PI 88788	1.9	30	41.3	1.8	50.1	39	550	1.2
MERSCHMAN	SHAWNEE 1226RR2Y	2.6	PI 88788	1.8	23	38.8	2.3	49.9	40	275	0.6
ASGROW	AG2931	2.9	PI 88788	2.1	29	42.0	1.9	49.6	41	475	0.7
Mavrick	9302RY	3.0	PI 88788	2.0	31	40.0	2.4	49.5	42	250	0.3
Syngenta	S31-L7 Brand	3.1	PI 88788	2.0	31	39.0	2.1	49.4	43	250	1.1
Dairyland Seed	DSR-2995/R2Y	2.9	PI 88788	1.9	32	41.3	1.9	48.5	44	250	0.3
MERSCHMAN	MOHAWK 1128RR2Y	2.8	PI 88788	1.5	29	39.0	2.0	47.9	45	75	0.4
Syngenta	S29-W7 Brand	2.9	PI 88788	2.5	27	39.8	1.9	47.5	46	400	0.7
ASGROW	AG3030	3.0	PI 88788	2.2	29	38.0	2.0	47.4	47	600	1.0
Mycogen Seeds	5N304R2	3.0	PI 88788	1.9	32	39.5	1.8	47.4	47	1,375	1.1
LATHAM	L2784R2	2.7	PI 88788	2.0	28	39.5	2.0	46.5	50	7,775	11.5
Legend Seeds	LR 25R21N	2.5	PI 88788	1.6	29	40.8	2.3	46.4	51	200	0.2
MERSCHMAN	ARTHUR 1230RR2Y	3.0	PI 88788	2.4	31	39.5	2.1	45.9	52	575	1.2
Mean		2.7	-	2.1	27	39.3	2.0	51.2	-	1,441	2.4
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	2.7	0.3	4.2	-	2,657	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	2.3	0.2	3.6	-	2,226	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	21	34.5	1.9	51.6	21	7,400	12.3
<i>Pioneer</i>	<i>92Y82</i>	2.8	<i>None</i>	1.8	26	39.8	1.5	47.2	49	9,525	14.1
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	26	37.3	1.9	45.9	52	12,300	11.7
Mean		2.7	-	2.1	24	37.2	1.8	48.2	-	9,742	12.7

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

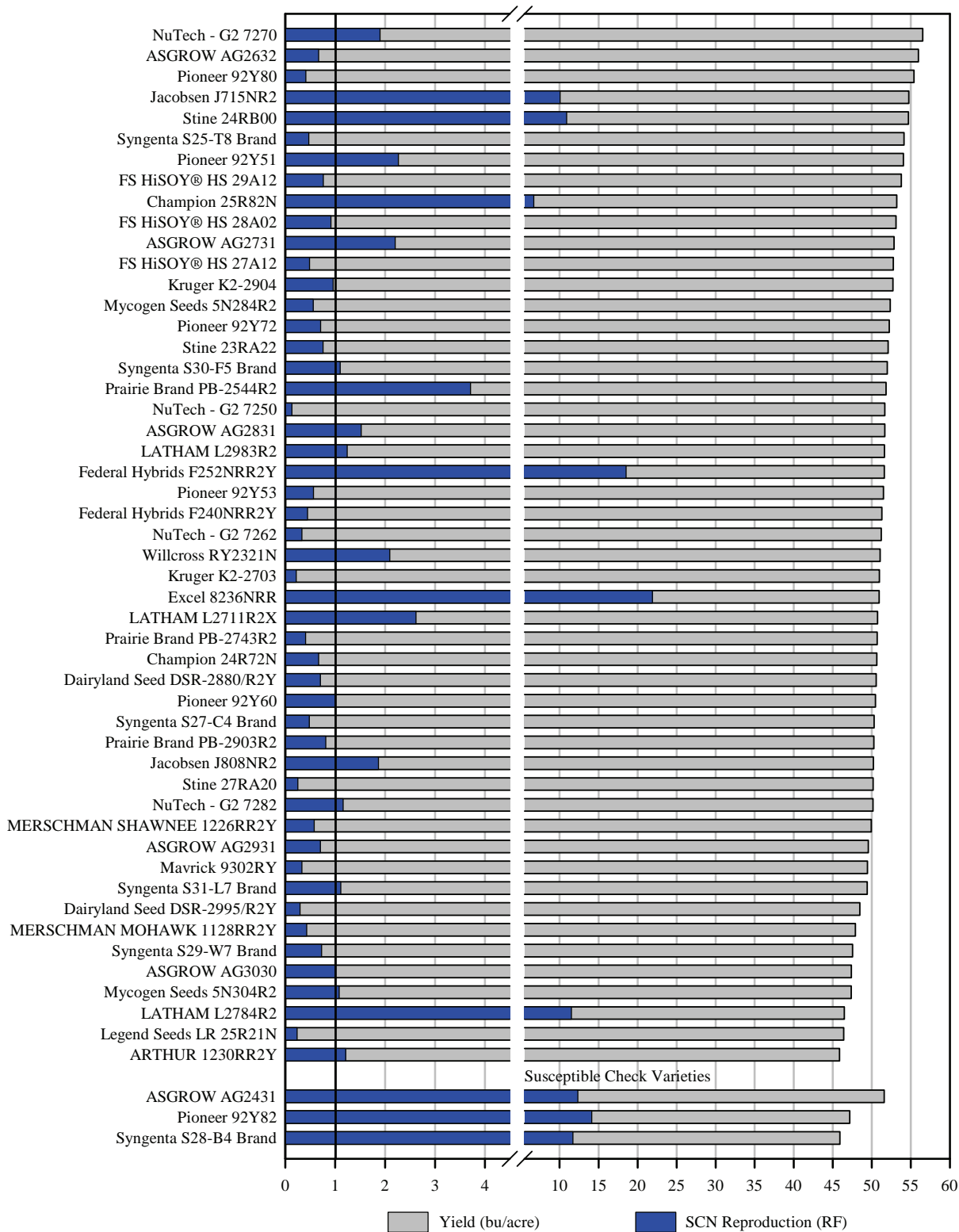
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 669 eggs per 100 cc soil; HG Type 5.7 (7.1% on PI 88788, 1.4% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 11. Alburnett (EC Iowa) Glyphosate-resistant.



- Average initial SCN population density 669 eggs per 100 cc soil.  
 - HG Type 5.7 (7.1% on PI 88788, 1.4% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 12. Alburnett (EC Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
eMerge	289.TC	2.8	PI 88788	2.1	30	39.8	2.4	47.2	2	1,150	1.1
Mavrick	0287LL	2.8	PI 88788	2.7	33	40.5	2.1	45.8	3	7,775	9.7
Mavrick	0307LL	3.0	PI 88788	2.3	29	41.0	2.3	45.8	3	11,075	4.1
MERSCHMAN	MOHAVE 1128LL	2.8	PI 88788	2.4	33	38.0	2.0	43.6	5	11,325	8.1
	Mean	2.9	-	2.4	31	39.8	2.2	45.6	-	7,831	5.7
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	NS	NS	NS	-	7,576	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	NS	NS	NS	-	6,139	-
<i>ASGROW</i>	<i>AG2431</i>	2.4	<i>None</i>	3.0	26	35.8	1.9	52.4	1	11,925	11.4
<i>Pioneer</i>	<i>92Y82</i>	2.8	<i>None</i>	1.8	31	40.3	1.6	47.4	6	6,200	6.0
<i>Syngenta</i>	<i>S28-B4 Brand</i>	2.8	<i>None</i>	1.6	29	37.8	1.8	43.4	7	13,175	11.0
	Mean	2.7	-	2.1	29	37.9	1.8	47.7	-	10,433	9.5

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 1,325 eggs per 100 cc soil; HG Type 5.7 (7.1% on PI 88788, 1.4% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 12. Alburnett (EC Iowa) Conventional.

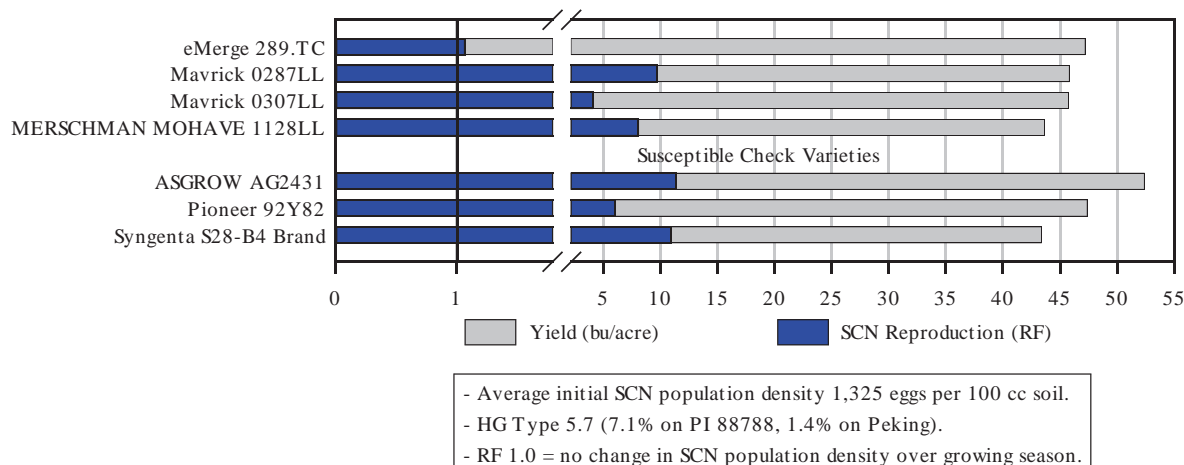


Table 13. Oskaloosa (SC Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Willcross	RY2383N	3.8	PI 88788	2.4	35	38.3	1.8	57.8	1	1,675	0.8
Syngenta	S34-N3 Brand	3.4	PI 88788	1.7	32	37.8	1.5	55.4	2	1,600	1.0
Stine	37RC82	3.7	PI 88788	2.3	33	37.3	1.8	55.4	2	1,050	0.7
Willcross	RY2393N	3.9	PI 88788	2.5	35	37.5	2.0	54.9	4	800	0.4
Lewis	351R2	3.5	PI 88788	2.1	32	36.5	1.8	54.8	5	1,175	0.7
ASGROW	AG3432	3.4	PI 88788	2.3	34	36.8	2.0	54.8	5	1,650	0.9
Kruger	K2-3402	3.4	PI 88788	2.2	32	35.8	1.5	54.7	7	2,975	1.9
Prairie Brand	PB-3878R2	3.8	PI 88788	2.2	35	36.3	1.6	54.6	8	775	0.5
ASGROW	AG3231	3.2	PI 88788	2.4	33	34.5	1.5	54.6	8	1,025	0.8
NuTech - G2	7342	3.4	PI 88788	2.3	35	32.8	1.5	54.3	10	675	0.4
Mavrick	0355RR	3.5	PI 88788	2.3	32	35.3	2.0	54.2	11	975	0.6
Syngenta	S35-T9 Brand	3.5	PI 88788	2.3	35	41.3	1.9	54.2	11	800	0.2
Pioneer	93Y13	3.1	PI 88788	2.1	30	31.5	1.5	54.1	13	875	0.7
MERSCHMAN	KENNEDY 1036RR2Y	3.6	PI 88788	2.3	30	40.0	2.0	53.6	14	725	0.4
Willcross	2350NS	3.5	PI 88788	2.3	33	36.3	1.9	53.4	15	550	0.2
Stine	33RA02	3.3	PI 88788	2.5	32	33.0	1.9	53.4	15	675	0.4
Dairyland Seed	DSR-3736/R2Y	3.7	PI 88788	2.4	35	34.8	1.5	53.3	17	525	0.5
Pioneer	93M61	3.5	PI 88788	2.5	35	35.5	1.6	53.3	17	450	0.3
Federal Hybrids	F312NRR2Y	3.1	PI 88788	1.9	30	36.8	1.9	53.3	17	775	0.3
Prairie Brand	PB-3342R2	3.3	PI 88788	1.9	31	35.8	1.8	53.2	20	1,300	0.7
LATHAM	L3385R2	3.3	PI 88788	1.9	31	35.5	1.6	53.0	21	1,300	0.5
NuTech - G2	7332	3.3	PI 88788	2.4	32	33.8	1.8	53.0	21	475	0.3
MERSCHMAN	WASHINGTON 1238RR	3.8	PI 88788	2.4	35	33.5	1.9	52.9	23	1,875	0.9
Pioneer	93Y40	3.4	PI 88788	2.0	32	34.8	2.0	52.8	24	575	0.3
Stine	3522-4	3.5	PI 88788	2.0	34	36.5	2.0	52.7	25	1,050	0.5
Pioneer	93Y60	3.6	PI 88788	2.2	33	36.8	1.5	52.6	26	725	0.5
FS HiSOY®	HS 34A12	3.4	PI 88788	2.2	32	35.8	1.9	52.6	26	1,000	0.7
Kruger	K2-3701	3.7	PI 88788	2.0	32	35.3	1.6	52.6	26	750	0.3
FS HiSOY®	HS 37A02	3.8	PI 88788	2.8	36	39.3	1.9	52.6	26	2,150	1.0
Mycogen Seeds	5N342R2	3.4	PI 88788	2.0	32	36.5	1.5	52.6	26	1,100	0.5
Syngenta	S31-L7 Brand	3.1	PI 88788	2.0	30	33.8	1.9	52.5	31	725	0.6
FS HiSOY®	HS 36A12	3.6	PI 88788	2.3	33	36.3	1.9	52.5	31	650	0.5
Jacobsen	J819NR2	2.9	PI 88788	1.9	31	33.8	1.9	52.5	31	725	0.4
Federal Hybrids	F281NRR2Y	2.8	PI 88788	1.7	25	34.0	1.6	52.2	34	625	0.5
ASGROW	AG3731	3.7	PI 88788	2.5	34	37.5	2.0	52.1	35	775	0.4
Prairie Brand	PB-3188R2	3.1	PI 88788	2.5	31	36.3	1.9	52.0	36	1,050	1.3
Lewis	392R2	3.9	PI 88788	2.0	36	35.8	1.8	51.6	37	1,175	0.8
ASGROW	AG3431	3.4	PI 88788	2.8	31	34.5	1.6	51.6	37	950	0.7
Syngenta	S39-U2 Brand	3.9	PI 88788	1.9	36	37.5	2.0	51.6	37	575	0.3
Jacobsen	J914NR2	3.4	PI 88788	2.0	31	37.0	2.0	51.6	37	1,075	1.0
Dairyland Seed	DSR-3232/R2Y	3.2	PI 88788	1.9	31	35.0	1.5	51.4	41	700	0.5
Mycogen Seeds	5N371R2	3.7	PI 88788	2.4	36	34.5	2.0	51.1	42	950	0.3
Lewis	302R2	3.0	PI 88788	1.9	31	33.8	1.6	51.1	42	1,025	0.8
Mavrick	6343RR	3.4	PI 88788	2.0	32	36.0	2.0	50.8	44	1,075	0.3
NuTech - G2	7290	2.9	PI 88788	1.8	30	30.0	1.5	50.6	45	750	0.4
Champion	29R32N	2.9	PI 88788	2.0	30	34.5	1.9	50.4	46	775	0.4
Kruger	K2-3202	3.2	PI 88788	2.2	30	34.3	1.6	49.3	47	650	0.2
Champion	282NR	2.8	PI 88788	1.8	29	34.3	1.8	49.1	48	775	0.3
LATHAM	L3268R2	3.2	PI 88788	2.3	30	36.0	1.9	47.6	49	1,425	0.8
LATHAM	L2711R2X	2.7	PUSCN 14	1.9	27	35.3	2.0	43.5	52	1,050	1.0
Mean		3.4	-	2.2	32	35.6	1.8	52.6	-	991	0.6
LSD <sup>3</sup> (P = 0.05)		-	-	-	-	2.6	0.3	3.5	-	938	-
LSD <sup>3</sup> (P = 0.10)		-	-	-	-	2.2	0.2	2.9	-	786	-
<i>Syngenta</i>	<i>S36-B6 Brand</i>	3.6	<i>None</i>	2.0	35	34.8	1.8	45.8	50	10,375	6.5
<i>Pioneer</i>	<i>93M11</i>	3.1	<i>None</i>	1.7	31	31.0	1.5	45.0	51	3,950	3.1
<i>ASGROW</i>	<i>AG3240V</i>	3.2	<i>None</i>	2.4	31	31.0	1.6	43.1	53	6,950	1.8
Mean		3.3	-	2.0	32	32.3	1.6	44.6	-	7,092	3.8

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

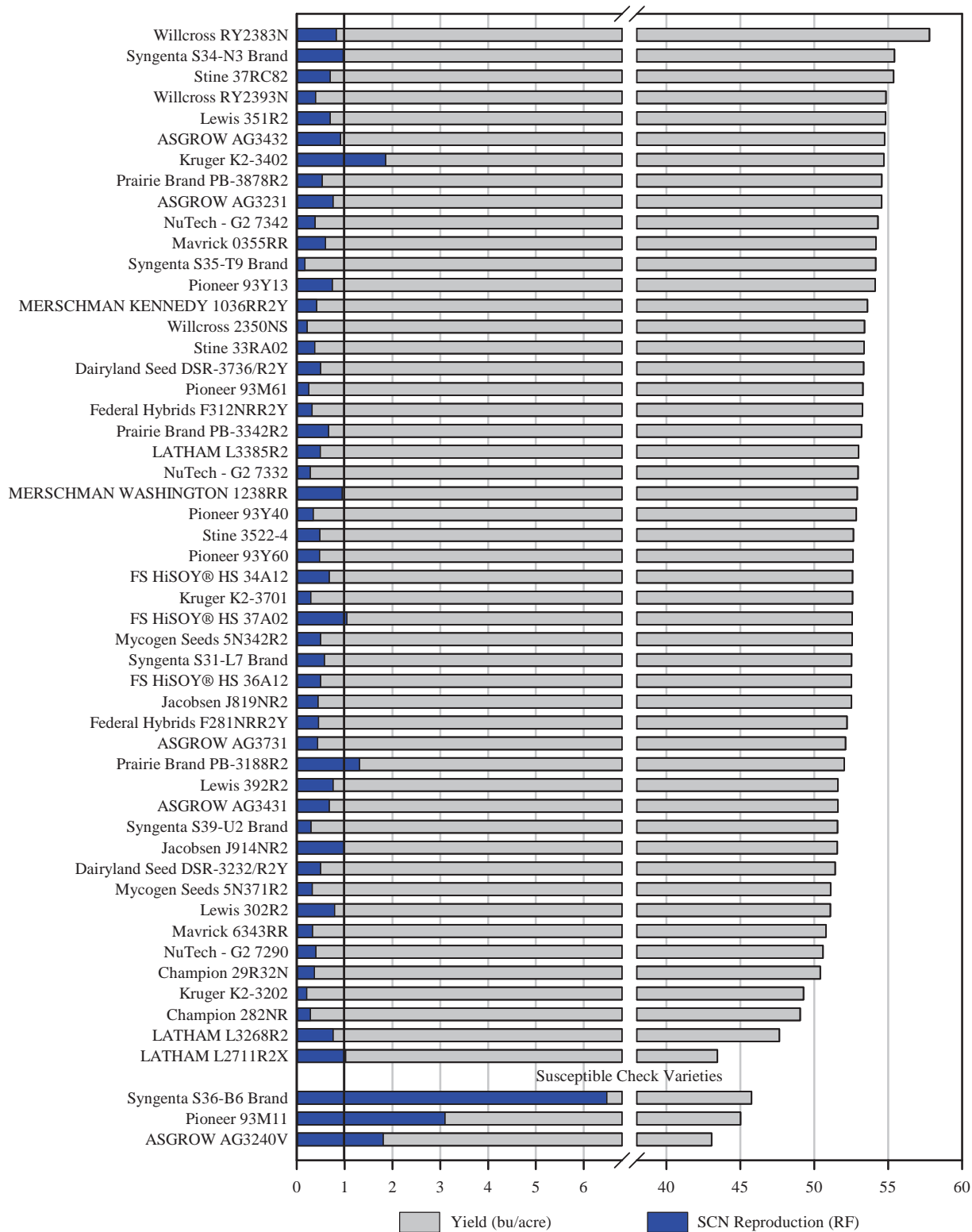
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 1,849 eggs per 100 cc soil; HG Type 2 (13.5% on PI 88788, 3.4% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 13. Oskaloosa (SC Iowa) Glyphosate-resistant.



- Average initial SCN population density 1,849 eggs per 100 cc soil.  
 - HG Type 2 (13.5% on PI 88788, 2.7% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.



Table 14. Oskaloosa (SC Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
MERSCHMAN	MADISON 1039LL	3.9	PI 88788	2.4	36	34.8	1.8	55.3	1	600	0.8
eMerge	389F.YC	3.7	PI 88788	2.6	32	32.8	1.5	52.6	2	1,400	0.9
MERSCHMAN	GRANT 1236LL	3.6	PI 88788	2.5	37	35.0	1.9	51.3	3	900	0.7
eMerge	348.TCS	3.4	PI 88788	2.5	33	32.8	1.6	50.6	4	750	0.6
MERSCHMAN	TRUMAN 938LL	3.8	PI 88788	2.2	37	36.5	1.9	50.6	4	1,025	0.4
Willcross	1137N	3.7	PI 88788	2.2	36	36.8	1.9	49.4	6	375	0.3
Mavrick	9326LL	3.2	PI 88788	2.0	35	31.5	1.8	47.6	7	775	0.5
Mavrick	0357LL	3.5	PI 88788	2.3	36	31.3	1.9	43.9	10	10,850	4.7
Iowa State University	IAR3001 Phyto/SCN	3.0	Peking and PI 438489B	2.5	20	30.8	2.0	43.0	11	900	0.5
	Mean	3.5	-	2.4	33	33.6	1.8	49.4	-	1,953	1.0
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	3.8	NS	3.8	-	2,190	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	3.1	NS	3.2	-	1,816	-
<i>ASGROW</i>	<i>AG3240V</i>	3.6	<i>None</i>	2.4	31	30.5	1.4	44.0	8	10,050	13.9
<i>Pioneer</i>	<i>93M11</i>	3.1	<i>None</i>	1.7	29	30.8	1.3	44.0	8	8,050	5.1
<i>Syngenta</i>	<i>S36-B6 Brand</i>	3.2	<i>None</i>	2.0	35	33.5	1.6	41.4	12	11,750	7.7
	Mean	3.3	-	2.0	32	31.6	1.4	43.1	-	9,950	8.9

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 1,527 eggs per 100 cc soil; HG Type 2 (13.5% on PI 88788, 3.4% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 14. Oskaloosa (SC Iowa) Conventional.

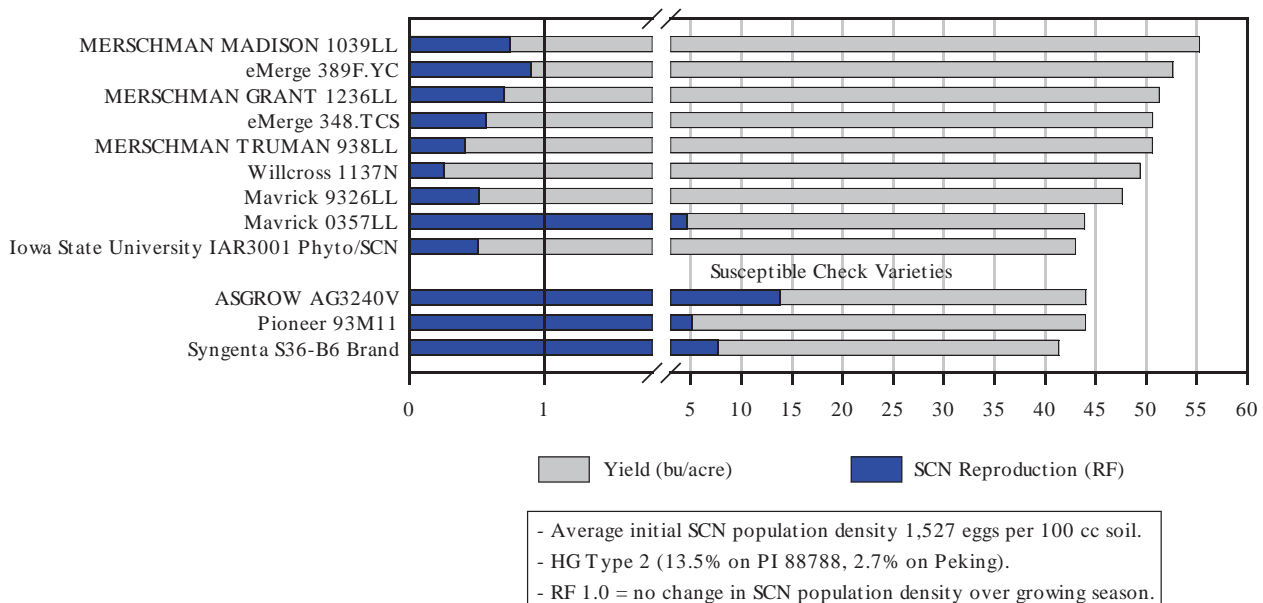


Table 15. Fruitland (SE Iowa) Glyphosate-resistant.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RP <sup>2</sup>
Pioneer	93M61	3.5	PI 88788	2.5	35	35.0	1.8	56.3	1	1,100	0.3
Lewis	302R2	3.0	PI 88788	1.9	31	32.3	1.6	51.1	2	1,725	1.1
Syngenta	S39-U2 Brand	3.9	PI 88788	1.9	36	32.3	1.8	50.9	3	525	0.1
Willcross	2350NS	3.5	PI 88788	2.3	33	35.5	2.0	50.5	4	900	0.3
ASGROW	AG3731	3.7	PI 88788	2.5	34	37.5	1.9	50.3	5	1,350	0.7
Pioneer	93Y40	3.4	PI 88788	2.0	32	31.3	1.8	50.3	5	450	0.1
Stine	3522-4	3.5	PI 88788	2.0	34	34.3	2.0	49.5	7	1,800	1.0
MERSCHMAN	WASHINGTON 1238RR	3.8	PI 88788	2.4	35	32.8	2.0	49.2	8	2,400	0.5
LATHAM	L3268R2	3.2	PI 88788	2.3	30	34.3	1.5	48.5	9	1,125	1.1
Syngenta	S35-T9 Brand	3.5	PI 88788	2.3	35	40.0	2.0	47.9	10	1,175	0.4
ASGROW	AG3432	3.4	PI 88788	2.3	34	33.8	1.9	47.9	10	3,650	1.6
Jacobsen	J819NR2	2.9	PI 88788	1.9	31	32.3	1.5	47.7	12	1,750	0.5
NuTech - G2	7342	3.4	PI 88788	2.3	35	29.5	1.6	46.9	13	1,075	0.7
Syngenta	S34-N3 Brand	3.4	PI 88788	1.7	32	33.8	1.6	46.8	14	2,400	1.2
Champion	282NR	2.8	PI 88788	1.8	29	30.5	1.5	46.7	15	1,400	0.5
Lewis	351R2	3.5	PI 88788	2.1	32	34.3	1.5	46.6	16	1,575	0.3
Kruger	K2-3402	3.4	PI 88788	2.2	32	34.3	1.8	46.5	17	1,200	0.6
FS HiSOY®	HS 34A12	3.4	PI 88788	2.2	32	31.0	1.9	46.1	18	500	0.1
LATHAM	L2711R2X	2.7	PUSCN 14	1.9	27	35.8	2.0	45.9	19	1,800	0.8
Stine	37RC82	3.7	PI 88788	2.3	33	31.3	1.6	45.8	20	1,175	0.5
LATHAM	L3385R2	3.3	PI 88788	1.9	31	32.3	1.5	45.6	21	850	0.3
Dairyland Seed	DSR-3736/R2Y	3.7	PI 88788	2.4	35	29.8	1.5	45.6	21	2,225	0.9
NuTech - G2	7290	2.9	PI 88788	1.8	30	30.0	1.6	45.6	21	2,125	1.0
Lewis	392R2	3.9	PI 88788	2.0	36	35.0	2.0	45.2	24	2,050	0.5
NuTech - G2	7332	3.3	PI 88788	2.4	32	31.5	1.5	45.2	24	2,525	0.9
Champion	29R32N	2.9	PI 88788	2.0	30	31.8	1.5	44.9	26	1,500	0.6
Jacobsen	J914NR2	3.4	PI 88788	2.0	31	35.5	1.9	44.8	27	1,075	0.4
ASGROW	AG3431	3.4	PI 88788	2.8	31	29.8	1.6	44.5	28	1,200	0.6
Stine	33RA02	3.3	PI 88788	2.5	32	29.8	1.5	44.5	28	2,300	1.1
Prairie Brand	PB-3188R2	3.1	PI 88788	2.5	31	32.8	1.6	44.4	30	1,100	0.4
Kruger	K2-3701	3.7	PI 88788	2.0	32	32.5	1.8	44.4	30	975	0.8
Federal Hybrids	F281NRR2Y	2.8	PI 88788	1.7	25	27.5	1.4	44.0	32	3,600	1.3
Mycogen Seeds	5N371R2	3.7	PI 88788	2.4	36	30.3	1.9	44.0	32	4,400	1.5
Mavrick	0355RR	3.5	PI 88788	2.3	32	32.0	1.6	43.8	34	3,150	2.6
Prairie Brand	PB-3878R2	3.8	PI 88788	2.2	35	32.5	1.5	43.5	35	2,825	1.5
Willcross	RY2383N	3.8	PI 88788	2.4	35	33.0	1.5	42.8	36	3,375	0.5
FS HiSOY®	HS 37A02	3.8	PI 88788	2.8	36	33.3	1.9	42.7	37	6,050	3.8
Syngenta	S31-L7 Brand	3.1	PI 88788	2.0	30	28.5	1.5	42.7	37	4,375	1.4
Willcross	RY2393N	3.9	PI 88788	2.5	35	32.5	1.6	42.7	37	650	0.3
Pioneer	93Y13	3.1	PI 88788	2.1	30	30.5	1.5	42.5	40	825	0.6
Mycogen Seeds	5N342R2	3.4	PI 88788	2.0	32	32.8	1.5	42.4	41	2,925	1.2
Pioneer	93Y60	3.6	PI 88788	2.2	33	31.3	1.5	42.3	42	1,625	0.8
FS HiSOY®	HS 36A12	3.6	PI 88788	2.3	33	31.5	1.8	42.0	43	850	0.2
Dairyland Seed	DSR-3232/R2Y	3.2	PI 88788	1.9	31	32.0	1.6	41.8	44	2,075	1.1
ASGROW	AG3231	3.2	PI 88788	2.4	33	33.0	1.6	41.3	45	1,275	0.5
Federal Hybrids	F312NRR2Y	3.1	PI 88788	1.9	30	29.3	1.5	41.1	46	675	0.3
Mavrick	6343RR	3.4	PI 88788	2.0	32	31.0	1.9	40.9	47	1,375	0.6
Prairie Brand	PB-3342R2	3.3	PI 88788	1.9	31	29.0	1.9	39.9	48	875	0.5
MERSCHMAN	KENNEDY 1036RR2Y	3.6	PI 88788	2.3	30	33.3	1.9	39.6	49	1,225	0.4
Kruger	K2-3202	3.2	PI 88788	2.2	30	28.3	1.5	39.5	50	675	0.3
Mean		3.4	-	2.2	32	32.3	1.7	45.3	-	1,797	0.8
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	3.5	0.3	7.7	-	NS	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	3.0	0.2	6.4	-	2,292	-
<i>Pioneer</i>	<i>93M11</i>	<i>3.1</i>	<i>None</i>	<i>1.7</i>	<i>31</i>	<i>29.3</i>	<i>1.5</i>	<i>39.1</i>	<i>51</i>	<i>19,875</i>	<i>6.0</i>
<i>ASGROW</i>	<i>AG3240V</i>	<i>3.2</i>	<i>None</i>	<i>2.4</i>	<i>31</i>	<i>30.0</i>	<i>1.5</i>	<i>35.5</i>	<i>52</i>	<i>13,950</i>	<i>4.5</i>
<i>Syngenta</i>	<i>S36-B6 Brand</i>	<i>3.6</i>	<i>None</i>	<i>2.0</i>	<i>35</i>	<i>29.8</i>	<i>1.6</i>	<i>34.0</i>	<i>53</i>	<i>13,425</i>	<i>3.9</i>
Mean		3.3	-	2.0	32	29.7	1.5	36.2	-	15,750	4.8

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

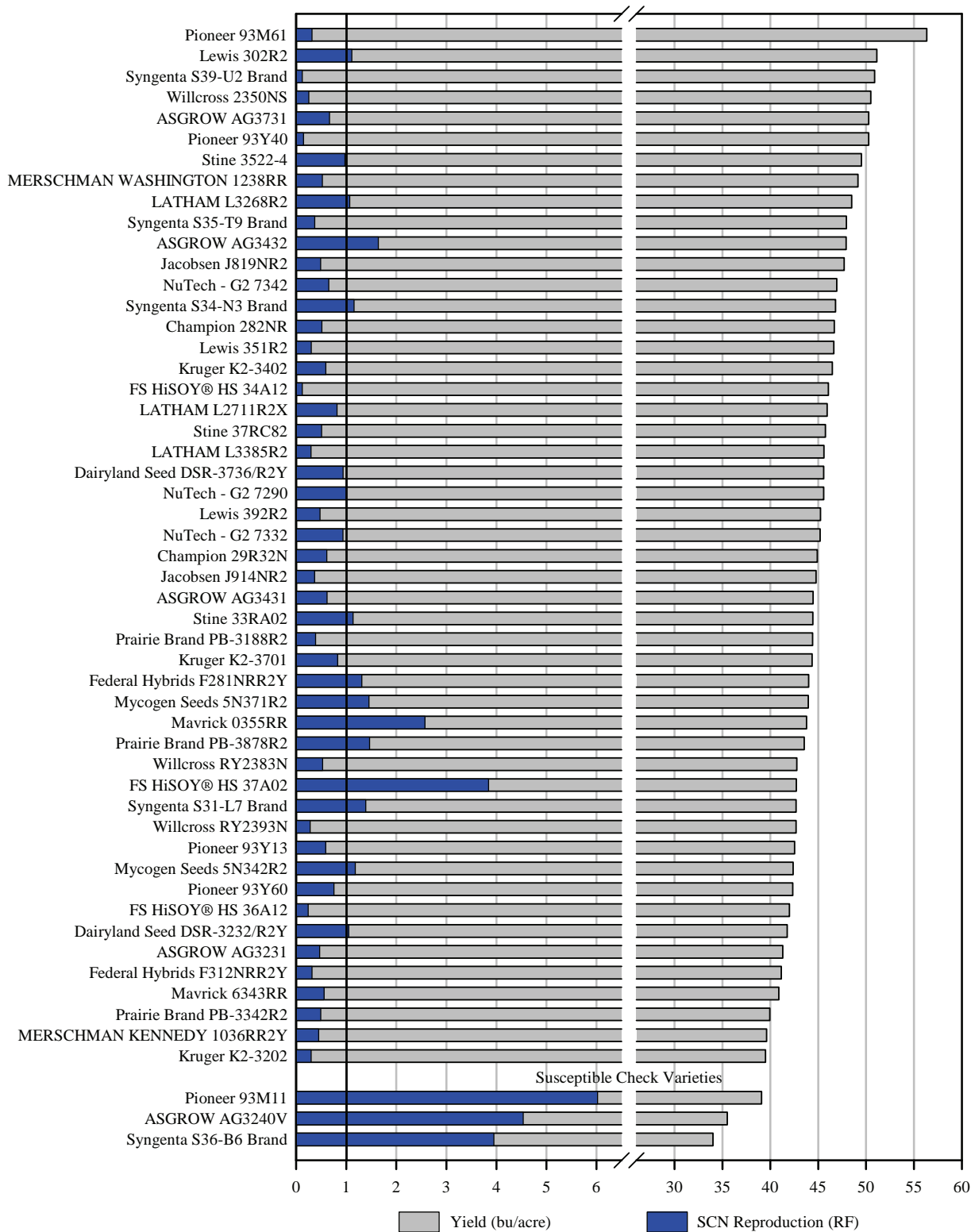
Italicized entries are widely grown SCN-susceptible varieties entered by Iowa State University for comparison purposes.

<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 2,668 eggs per 100 cc soil; HG Type 0 (2.0 % on PI 88788, 0.0 % on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 15. Fruitland (SE Iowa) Glyphosate-resistant.



- Average initial SCN population density 2,668 eggs per 100 cc soil.  
 - HG Type 0 (2.0% on PI 88788, 0.0% on Peking).  
 - RF 1.0 = no change in SCN population density over growing season.

Table 16. Fruitland (SE Iowa) Conventional.

Brand	Variety	Relative maturity	Resistance	IDC	Maturity date	Height (inches)	Lodging (1-5)	Yield (bu/acre)	Yield rank	SCN # (/100cc) <sup>1</sup>	RF <sup>2</sup>
Willcross	1137N	3.7	PI 88788	2.2	36	37.0	2.1	50.9	1	450	0.1
eMerge	348.TCS	3.4	PI 88788	2.5	33	30.8	1.5	49.7	2	1,200	0.3
MERSCHMAN	TRUMAN 938LL	3.8	PI 88788	2.2	37	36.3	2.0	49.2	3	1,025	0.3
MERSCHMAN	GRANT 1236LL	3.6	PI 88788	2.5	37	36.3	2.0	47.6	4	625	0.2
MERSCHMAN	MADISON 1039LL	3.9	PI 88788	2.4	36	34.0	1.6	47.0	5	425	0.1
eMerge	389F.YC	3.7	PI 88788	2.6	32	29.3	1.6	45.8	6	1,200	0.4
Mavrick	9326LL	3.2	PI 88788	2.0	35	31.5	1.5	44.1	7	1,450	0.4
Mavrick	0357LL	3.5	PI 88788	2.3	36	32.5	1.6	40.5	8	23,900	6.1
Iowa State University	IAR3001 Phyto/SCN	3.0	Peking and PI 438489B	2.5	20	35.3	2.0	36.5	9	1,650	0.5
	Mean	3.5	-	2.4	33	33.6	1.8	45.7	-	3,547	0.9
	LSD <sup>3</sup> (P = 0.05)	-	-	-	-	2.2	0.2	6.3	-	3,330	-
	LSD <sup>3</sup> (P = 0.10)	-	-	-	-	1.8	0.2	5.2	-	2,761	-
<i>Syngenta</i>	<i>S36-B6 Brand</i>	3.6	<i>None</i>	2.0	35	29.8	1.5	34.8	10	25,000	8.3
<i>Pioneer</i>	<i>93M11</i>	3.1	<i>None</i>	1.7	29	29.8	1.3	33.4	11	15,175	4.1
<i>ASGROW</i>	<i>AG3240V</i>	3.2	<i>None</i>	2.4	31	29.0	1.4	33.3	12	20,900	4.8
	Mean	3.3	-	2.0	32	29.5	1.4	33.9	-	20,358	5.7

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 3,648 eggs per 100 cc soil; HG Type 2.7 (2.0% on PI 88788, 0.0% on Peking).

<sup>2</sup> Average final SCN egg population density / average 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.

Figure 16. Fruitland (SE Iowa) Conventional.

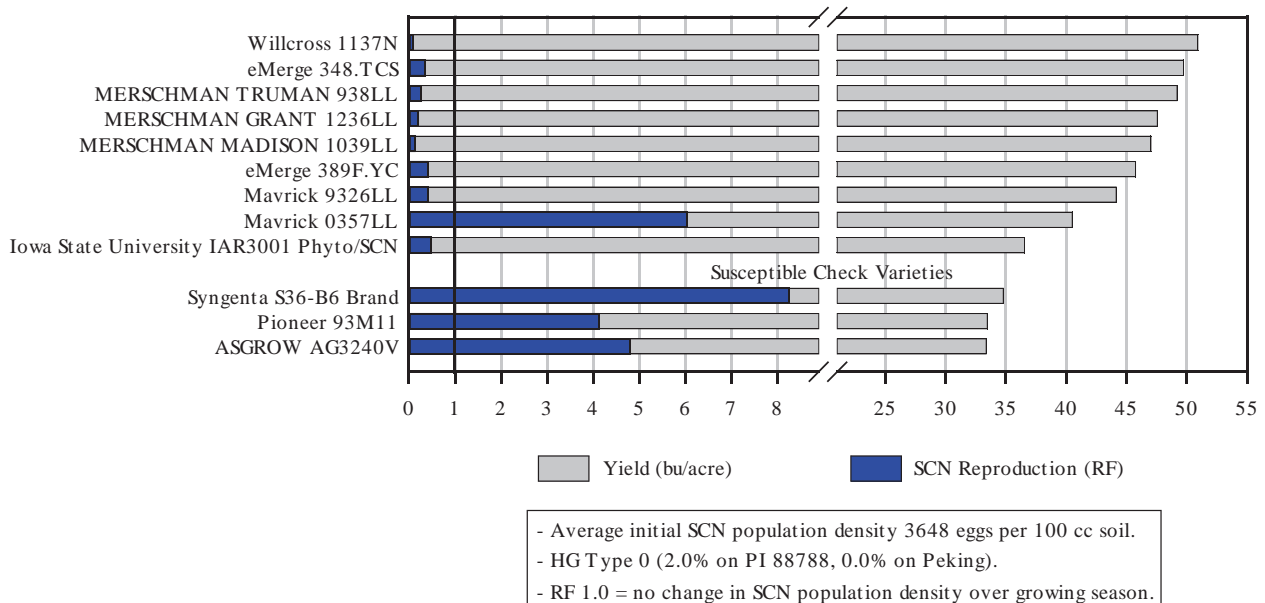


Table 17. Seed treatments used on varieties evaluated in 2011.

<b><u>ASGROW</u></b> all varieties treated with	Acceleron™	<b><u>Mycogen Seeds</u></b> all varieties treated with	CruiserMaxx™
<b><u>Champion</u></b> all varieties treated with	TRILEX® 6000	<b><u>NorthStar Genetics</u></b> all varieties treated with	CruiserMaxx™
<b><u>Dairvland</u></b> all varieties treated with	CruiserMaxx™	<b><u>NuTech – G2</u></b> all varieties treated with	SmartCote™ Extra
<b><u>eMerge Genetics</u></b> all varieties treated with	CruiserMaxx™	<b><u>Pioneer</u></b> all varieties treated with	PPST <sup>2</sup>
<b><u>Excel</u></b> 8236NRR	CruiserMaxx™	<b><u>Prairie Brand</u></b> all varieties treated with	CruiserMaxx™
<b><u>Federal Hybrids</u></b> F202NRR2Y F240NRR2Y F252NRR2Y F281NRR2Y F312NRR2Y	CruiserMaxx™ Acceleron™ Acceleron™ Acceleron™ CruiserMaxx™	<b><u>Stine</u></b> all varieties treated with	CruiserMaxx™
<b><u>FS HiSOY®</u></b> all varieties treated with	CruiserMaxx™	<b><u>Syngenta</u></b> all varieties treated with	CruiserMaxx™
<b><u>Gold Country Seed</u></b> all varieties treated with	Acceleron™	<b><u>Viking</u></b> all varieties treated with	CruiserMaxx™
<b><u>Iowa State University</u></b> all varieties treated with	CruiserMaxx™	<b><u>Willcross</u></b> all varieties treated with	Acceleron™
<b><u>Jacobsen</u></b> all varieties treated with	CruiserMaxx™		
<b><u>Kruger</u></b> all varieties treated with	Acceleron™ FI <sup>1</sup>		
<b><u>LATHAM</u></b> all varieties treated with	SoyShield Plus		
<b><u>Legend Seeds</u></b> all varieties treated with	CruiserMaxx™		
<b><u>Lewis Hybrids</u></b> all varieties treated with	Acceleron™		
<b><u>Mavrick</u></b> 0287LL 0307LL 0355RR 0357LL 6343RR 9302RY 9326LL	CruiserMaxx™ CruiserMaxx™ CruiserMaxx™ CruiserMaxx™ CruiserMaxx™ Acceleron™ CruiserMaxx™		
<b><u>MERSCHMAN</u></b> all varieties treated with	TRILEX® 6000		

<sup>1</sup>Fungicide and Insecticide.

<sup>2</sup>Pioneer Premium Seed Treatment (Trilex®, Allegiance®, and Gaucho®).

Table 18. Contact information for companies represented in 2011 experiments.

Albert Lea Seed (Viking)  
Brian White  
P.O. Box 127  
1414 W. Main St.  
Albert Lea, MN 56007  
phone: 800-352-5247  
e-mail: brian@alseed.com  
website: www.alseed.com

Bo-Jac Seed Company (Mavrick)  
Larry Schahl  
245 1500<sup>th</sup> Ave.  
Mt. Pulaski, IL 62548  
phone: 800-397-2069  
e-mail: larry@bo-jac.com  
website: www.bo-jac.com

Champion Seed  
Rob Thomas  
P.O. Box 157  
Ellsworth, IA 50075  
phone: 515-836-2141  
e-mail: robthomas@championseedofiowa.com  
website: www.championseedofiowa.com

Dairyland Seed Co.  
Mark Hayes  
P.O. Box 958  
West Bend, WI 53095  
phone: 800-236-0163  
email: mhayes@dairylandseed.com  
website: www.dairylandseed.com

Dow AgroSciences/Mycogen Seeds  
Robert Waller  
9330 Zionsville Rd.  
Bldg. 308 3A-315  
Indianapolis, IN 46268  
phone: 317-337-3663  
e-mail: rswaller@dow.com  
website: www.mycogen.com

Federal Hybrids, Inc.  
Kent Banwart  
220 S. Broadway  
P.O. Box 17  
West Bend, IA 50597  
phone: 515-320-2849  
e-mail: kent@federalhybrids.com  
website: www.federalhybrids.com

Gold County Seed  
Dave Schwartz  
P.O. Box 604  
16506 Highway 15 N.  
Hutchinson, MN 55350  
phone: 320-587-1050 x24  
e-mail: dave.schwartz@goldcountryseed.com  
website: www.goldcountryseed.com

GROWMARK (FS HiSOY®)  
Ken Martin  
1701 Towanda Ave.  
Bloomington, IL 61702  
phone: 309-557-6399  
e-mail: kmartin@growmark.com  
website: www.fsseed.com

Iowa State University  
Greg Gebhart  
351 Bessey Hall  
Ames, IA 50011  
phone: 515-294-5896  
e-mail: ggebhart@iastate.edu

Jacobsen Hybrid Corn Co. Inc.  
129 9<sup>th</sup> St.  
P.O. Box 379  
Lake View, IA 51450-0379  
phone: 800-761-1024  
e-mail: jacoseed@netins.net  
website: www.jacobsenseed.com

Kruger Seeds  
Blair Fuessley  
P.O. Box A  
Dike, IA 50624  
phone: 800-772-2721  
e-mail: blair@krugerseed.com  
website: www.krugerseed.com

Latham Hi-Tech Seeds  
Mark Grundmeier  
131 180th St.  
Alexander, IA 50420  
phone: 800-798-3258  
e-mail: markg@lathamseeds.com  
website: www.lathamseeds.com

Legend Seeds  
Mike Knight  
P.O. Box 241  
DeSmet, SD 57231  
phone: 712-253-3157  
e-mail: mike@legendseeds.net  
website: www.legendseeds.net

Lewis Hybrids  
Larry Robinson  
530 W. Maple Ave.  
Ursa, IL 62376  
phone: 217-415-1447  
e-mail: lrobinson@lewishybrids.com  
website: www.lewishybrids.com

Merschman Seeds, Inc.  
Joe Merschman  
103 Ave. D  
P.O. Box 67  
West Point, IA 52656  
phone: 800-848-7333  
e-mail: joem@merschmanseeds.com  
website: www.merschmanseeds.com

Monsanto (ASGROW)  
George Kadrmas  
800 North Lindbergh Boulevard  
St. Louis, MO 63167-0001  
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e-mail: george.kadrmas@monsanto.com  
website: www.asgrowanddekalb.com

Naylor Seed  
Dennis B. McCall  
16600 116<sup>th</sup> Ave.  
Scotch Grove, IA 52310  
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e-mail: dennis@naylorseed.com  
website: www.naylorseed.com

NorthStar Genetics  
Bob Jackson  
66687 180<sup>th</sup> Street  
Darwin, MN 55324  
phone: 320-221-0816  
e-mail: psibobjax@gmail.com  
website: www.northstargenetics.com

NuTech Seed  
Tom Thompson  
36131 Hwy 69N  
Forest City, IA 50436  
phone: 800-942-6748  
e-mail: sales@yieldleader.com  
website: www.yieldleader.com

Table 18 continued. Contact information for companies represented in 2011 experiments.

Pioneer Hi-Bred  
Scott Nelson  
9131 Northpark  
Johnston, IA 50131  
phone: 515-535-3939  
e-mail: scott.m.nelson@pioneer.com  
website: www.pioneer.com

Prairie Brand  
Ben Fisher  
11261 U.S. Hwy 69  
Story City, IA 50248  
phone: 800-544-8751  
e-mail: ben@prairiebrandseed.com  
website: www.prairiebrandseed.com

Schillinger Genetics (eMerge Genetics)  
Wayne Hoener  
4401 Westown Parkway  
Suite 225  
West Des Moines, IA 50266  
phone: 515-225-6134  
e-mail: whoener@schillgen.com  
website: www.emergegenetics.com

Stine Seed Company  
Brian Hartman  
22555 Laredo Trail  
Adel, IA 50003  
phone: 314-707-6826  
e-mail: info@stineseed.com  
website: www.stineseed.com

Syngenta Seeds (NK)  
Steve Sick  
100 JC Robinson Blvd.  
Waterloo, NE 68069  
phone: 402-616-6534  
e-mail: steve.sick@syngenta.com  
website: www.syngenta.com

Willcross Seed  
Jennifer Hass  
P.O. Box 667  
4564 U.S. Hwy. 169  
King City, MO 64463  
phone: 800-411-5957  
e-mail: kcseedjh@centurylink.net  
website: www.willcrossseed.com

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