

2022 SCN PRELIMINARY IIB

Strain	FPhm	Parentage	Gen.	Cooperator reported	
			Comp.	Traits	SCN Resistance source
1 IA2102	Wgy	A04-545045 x AgriPro 98180-A01-06131	F4		None
2 LD02-4485 (SCN)	PGbf	M90-184111 x IA3010	F5		PI 88788
3 U11-917032 (SCN)	PTbl	LD02-4485 x U03-100612	F6		PI 88788
4 U14-910097 (SCN)	PGbf	U09-105007 x LD07-3419	F5		PI 88788,437654
5 LD19-0959	P+WLtbl	M07-297007 x LD11-2170	F5		PI 88788
6 LD19-1713	PGbf	LD13-3483 x M09-285149	F5		PI 88788
7 LD19-1844	PLtbl	U14-925152 x LD11-2170	F5		PI 88788,437654
8 LD19-2412	PLtbl	U11-494100 x LD10-10198	F5		PI 88788
9 LD19-5726	PLtbr	LD12-6010a x LD11-2170	F5		PI 88788
10 LD19-6090	PTbl	E13100 x LD12-12701a	F5		PI 88788
11 LD19-6211	PLtbl	U11-614119 x LD13-6640	F5		PI 88788
12 LD19-6359	PGibl	U13-912010 x LD11-2170	F5		PI 88788
13 LD19-6548	PLtbr	U14-925152 x LD11-2170	F5		PI 88788,437654
14 LD20-4671	PTbl	U14-925152 x LD14-6190	F4		PI 88788,437654
15 LD20-4988	PLtbr	U14-910097 x LD11-2170	F4		PI 88788,437654
16 LD20-5050	PGibl	U14-925152 x LD11-2170	F4		PI 88788,437654
17 U19-047020	WLtbl	SA13-1385 x ORC_3713N	F5		PI 88788
18 U19-049031	PGibl	LD12-459 x U14-910097	F5	Rps	PI 88788,437654
19 U19-064065	PGy	U14-910097 x ORC_3713N	F5	Rps	PI 88788,437654
20 U19-065056	PLty	U14-903100 x ORC_3713N	F5	Rps	PI 88788
21 U19-218023	PGbf	U14-910097 x U14-909100	F5	Rps	PI 88788,437654
22 U19-220046	PGbf	U14-910097 x U14-909100	F5	Rps	PI 88788,437654
23 U19-243017	PGibl/bf	U14-925152 x U14-909100	F5	IDC,Rps	PI 88788,437654
24 U20-923004	PLtbl/br	U14-910097 x U14-212231	F5	Rps	PI 88788,437654
25 U20-934097	PLtbl/br	U14-910097 x U14-212231	F5	Rps	PI 88788,437654

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Entry	SNP marker analysis		
	SCN		
	Rhg1-88788	Rhg1-Peking	Rhg4
1 IA2102			
2 LD02-4485 (SCN)			
3 U11-917032 (SCN)			
4 U14-910097 (SCN)			
5 LD19-0959	R	S	S
6 LD19-1713	R	S	S
7 LD19-1844	R	S	S
8 LD19-2412	R	S	S
9 LD19-5726	R	S	S
10 LD19-6090	R	S	S
11 LD19-6211	S	R	S
12 LD19-6359	R	S	S
13 LD19-6548	R	S	S
14 LD20-4671	S	R	S
15 LD20-4988	S	R	S
16 LD20-5050	R	S	R
17 U19-047020	R	S	S
18 U19-049031	S	R	R
19 U19-064065	S	.	S
20 U19-065056	Het	S	S
21 U19-218023	S	R	S
22 U19-220046	Het	S	R
23 U19-243017	R	S	S
24 U20-923004	S	S	R
25 U20-934097	S	S	Het

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Predicted resistance genes based on SNP marker analysis

Entry	SCN	Iron Chlorosis	Phytophthora	Root Knot Nematode	Brown Stem Rot	Frogeye Leaf Spot	Stem Canker
1 IA2102							
2 LD02-4485 (SCN)							
3 U11-917032 (SCN)							
4 U14-910097 (SCN)							
5 LD19-0959	Rhg1_PI88788	R-(LgA1+LgN) + Het-Ch13	Rps1k	S	R	S	R
6 LD19-1713	Rhg1_PI88788	R-Ch13	Rps1c	S	S	S	R
7 LD19-1844	Rhg1_PI88788	R-LgN + Het-Ch13	Rps1k	S	R	S	R
8 LD19-2412	Rhg1_PI88788	Het-LgN + R-Ch13	Rps1c	S	S	S	R
9 LD19-5726	Rhg1_PI88788	R-LgN		S	R	S	R
10 LD19-6090	Rhg1_PI88788	R-LgA1+ Het-Ch13	Rps1c	S	R	S	R
11 LD19-6211	Rhg1_Peking	Het-LgN + R-Ch13	Rps1k	S	S	S	R
12 LD19-6359	Rhg1_PI88788	R-(LgN+Ch13)	Rps1k	S	R	S	R
13 LD19-6548	Rhg1_PI88788	R-(LgN+Ch13)		S	R	S	R
14 LD20-4671	Rhg1_Peking	R-(LgN+Ch13)		S	R	S	R
15 LD20-4988	Rhg1_Peking	R-(LgN+Ch13)	Rps1k	S	R	S	R
16 LD20-5050	Rhg1_PI88788+Rhg4	R-LgN	Rps1k	S	R	S	R
17 U19-047020	Rhg1_PI88788	R-(LgA1+Ch13)		S	S	S	R
18 U19-049031	Rhg1_Peking+Rhg4	R-Ch13		S	S	S	R
19 U19-064065		R-Ch13	Het-Rps1c	S	Het	S	R
20 U19-065056	Het-Rhg1_PI88788	R-Ch13	Het-Rps1c	S	S	S	R
21 U19-218023	Rhg1_Peking	R-(LgA1+Ch13)		S	S	S	R
22 U19-220046	Het-Rhg1_PI88788	R-(LgA1+Ch13)		S	S	S	R
23 U19-243017	Rhg1_PI88788	R-Ch13		S	Het	S	R
24 U20-923004	Rhg4	R-(LgA1+Ch13)	Rps1k	S	S	S	R
25 U20-934097	Het-Rhg4	R-Ch13	Het-Rps1k	S	S	S	R

2022 SCN PRELIMINARY IIB

Yield (bu/a)

SCN HG Type	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	67.2	53.3	62.0	87.8	78.2
2 LD02-4485 (SCN)	70.2	57.8	60.3	88.1	83.3
3 U11-917032 (SCN)	45.9	47.9	44.1	80.3	76.8
4 U14-910097 (SCN)	74.2	67.0	68.1	89.9	89.8
5 LD19-0959	61.3	59.1	66.2	89.7	90.8
6 LD19-1713	63.0	52.2	49.6	74.8	70.0
7 LD19-1844	71.7	60.2	62.0	85.7	91.0
8 LD19-2412	64.3	53.6	56.6	80.6	77.0
9 LD19-5726	62.1	62.8	67.1	87.4	89.9
10 LD19-6090	54.9	47.9	55.7	72.6	72.5
11 LD19-6211	57.8	54.4	41.5	94.6	76.0
12 LD19-6359	60.5	61.5	55.7	88.6	88.8
13 LD19-6548	54.4	65.1	67.3	88.9	89.4
14 LD20-4671	57.6	61.9	57.0	87.6	82.6
15 LD20-4988	54.9	66.4	68.8	80.7	85.8
16 LD20-5050	62.5	64.0	63.4	87.1	93.4
17 U19-047020	64.7	57.5	59.4	84.9	79.0
18 U19-049031	72.0	63.1	65.1	91.7	83.5
19 U19-064065	55.8	57.5	51.3	85.4	82.3
20 U19-065056	56.1	60.1	47.5	88.4	78.2
21 U19-218023	64.0	57.2	60.0	94.4	87.1
22 U19-220046	66.7	61.3	65.3	85.7	85.9
23 U19-243017	72.6	57.0	60.8	80.8	84.7
24 U20-923004	47.8	55.0	49.8	86.0	83.0
25 U20-934097	56.9	63.6	60.0	84.6	85.8
Mean	61.6	58.7	58.6	85.8	83.4
C.V. %	10.2	8.7	15.4	5.0	7.2
LSD(2-sided,.05)	13.0	10.5	14.9	10.5	14.8
Replications	2	2	2	2	2
Row spacing (in.)	30	30	30	30	30

2022 SCN PRELIMINARY IIB

Yield (rank)

SCN HG Type	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	6	22	10	10	20
2 LD02-4485 (SCN)	5	14	12	9	14
3 U11-917032 (SCN)	25	24	24	23	22
4 U14-910097 (SCN)	1	1	2	4	5
5 LD19-0959	14	13	5	5	3
6 LD19-1713	11	23	22	24	25
7 LD19-1844	4	11	9	15	2
8 LD19-2412	9	21	17	22	21
9 LD19-5726	13	7	4	12	4
10 LD19-6090	22	24	19	25	24
11 LD19-6211	16	20	25	1	23
12 LD19-6359	15	9	18	7	7
13 LD19-6548	23	3	3	6	6
14 LD20-4671	17	8	16	11	16
15 LD20-4988	21	2	1	21	11
16 LD20-5050	12	4	8	13	1
17 U19-047020	8	15	15	18	18
18 U19-049031	3	6	7	3	13
19 U19-064065	20	15	20	17	17
20 U19-065056	19	12	23	8	19
21 U19-218023	10	17	14	2	8
22 U19-220046	7	10	6	16	9
23 U19-243017	2	18	11	20	12
24 U20-923004	24	19	21	14	15
25 U20-934097	18	5	13	19	10

2022 SCN PRELIMINARY IIB

Maturity

	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
SCN HG Type	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	9/30	9/17			9/26
2 LD02-4485 (SCN)	0	3			3
3 U11-917032 (SCN)	-3	-2			-6
4 U14-910097 (SCN)	7	5			5
5 LD19-0959	6	5			5
6 LD19-1713	-4	0			-7
7 LD19-1844	4	4			4
8 LD19-2412	8	6			5
9 LD19-5726	6	5			5
10 LD19-6090	-2	-2			-4
11 LD19-6211	-4	-3			-7
12 LD19-6359	-2	0			2
13 LD19-6548	6	5			5
14 LD20-4671	6	5			4
15 LD20-4988	2	4			0
16 LD20-5050	6	3			4
17 U19-047020	2	1			2
18 U19-049031	-2	2			-1
19 U19-064065	-3	-1			-3
20 U19-065056	-2	-1			-1
21 U19-218023	-2	-1			0
22 U19-220046	2	1			2
23 U19-243017	1	3			2
24 U20-923004	-2	-2			-4
25 U20-934097	0	3			4
Planted	6/04	5/17	5/10	5/28	5/28

2022 SCN PRELIMINARY IIB

Lodging (score)

	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
SCN HG Type	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	3.0	1.5			2.0
2 LD02-4485 (SCN)	2.5	1.5			1.0
3 U11-917032 (SCN)	2.0	1.3			1.5
4 U14-910097 (SCN)	2.0	1.5			1.0
5 LD19-0959	1.5	1.5			1.0
6 LD19-1713	2.0	1.0			1.0
7 LD19-1844	1.5	1.0			1.0
8 LD19-2412	2.0	1.0			1.0
9 LD19-5726	2.5	1.0			1.0
10 LD19-6090	2.0	1.0			1.0
11 LD19-6211	1.5	1.0			1.0
12 LD19-6359	2.0	1.0			1.0
13 LD19-6548	2.0	1.3			1.0
14 LD20-4671	2.0	1.3			1.0
15 LD20-4988	2.0	1.5			1.0
16 LD20-5050	2.0	1.5			1.0
17 U19-047020	2.0	1.3			1.0
18 U19-049031	1.5	1.0			1.0
19 U19-064065	2.0	1.3			1.0
20 U19-065056	1.5	1.3			1.0
21 U19-218023	2.0	1.0			1.0
22 U19-220046	2.0	1.0			1.0
23 U19-243017	1.5	1.3			1.0
24 U20-923004	2.0	1.5			1.0
25 U20-934097	1.5	1.5			1.0

2022 SCN PRELIMINARY IIB

Height (inches)

SCN HG Type	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	36	33			37
2 LD02-4485 (SCN)	36	34			38
3 U11-917032 (SCN)	31	29			33
4 U14-910097 (SCN)	36	32			37
5 LD19-0959	36	36			39
6 LD19-1713	35	29			37
7 LD19-1844	37	33			40
8 LD19-2412	38	32			39
9 LD19-5726	35	33			35
10 LD19-6090	36	32			35
11 LD19-6211	34	31			32
12 LD19-6359	36	33			37
13 LD19-6548	36	32			37
14 LD20-4671	36	30			38
15 LD20-4988	36	31			33
16 LD20-5050	33	31			34
17 U19-047020	36	35			41
18 U19-049031	33	33			30
19 U19-064065	38	34			39
20 U19-065056	39	39			41
21 U19-218023	36	32			37
22 U19-220046	36	32			37
23 U19-243017	36	35			40
24 U20-923004	37	35			38
25 U20-934097	35	36			41

2022 SCN PRELIMINARY IIB

Seed Weight (g/100)

SCN HG Type	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
Strain	2.5.7	2.5.7	Inf	NI	NI
1 IA2102	17.4	17.5			18.2
2 LD02-4485 (SCN)	17.2	16.4			15.2
3 U11-917032 (SCN)	16.9	17.2			16.6
4 U14-910097 (SCN)	15.9	16.9			15.7
5 LD19-0959	14.4	15.0			14.7
6 LD19-1713	20.0	20.0			18.4
7 LD19-1844	15.9	16.3			15.9
8 LD19-2412	15.1	13.8			14.2
9 LD19-5726	16.7	15.9			16.9
10 LD19-6090	17.9	17.7			16.4
11 LD19-6211	16.4	17.0			16.6
12 LD19-6359	16.6	16.6			16.6
13 LD19-6548	17.5	17.0			18.0
14 LD20-4671	17.2	18.3			17.0
15 LD20-4988	17.0	16.9			15.9
16 LD20-5050	16.5	16.4			16.9
17 U19-047020	17.0	16.7			16.0
18 U19-049031	16.5	16.7			16.2
19 U19-064065	18.7	18.2			18.5
20 U19-065056	17.9	16.7			17.7
21 U19-218023	16.2	16.5			16.0
22 U19-220046	17.0	16.5			16.8
23 U19-243017	17.8	17.5			17.5
24 U20-923004	17.6	16.8			17.4
25 U20-934097	16.9	16.8			17.1

2022 SCN PRELIMINARY IIB

Seed Quality (score)

SCN HG Type	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	2.0	3.0			1.0
2 LD02-4485 (SCN)	2.0	3.0			1.0
3 U11-917032 (SCN)	2.0	2.0			1.0
4 U14-910097 (SCN)	2.0	2.0			1.0
5 LD19-0959	1.5	2.0			1.0
6 LD19-1713	2.0	2.0			1.0
7 LD19-1844	1.5	1.0			1.0
8 LD19-2412	1.5	2.0			1.0
9 LD19-5726	2.0	2.0			1.0
10 LD19-6090	2.5	2.0			1.0
11 LD19-6211	1.5	1.0			1.0
12 LD19-6359	2.0	2.0			1.0
13 LD19-6548	2.5	2.0			1.0
14 LD20-4671	1.0	1.0			1.0
15 LD20-4988	2.5	1.0			1.0
16 LD20-5050	3.0	2.0			1.0
17 U19-047020	2.0	1.0			1.0
18 U19-049031	1.5	2.0			1.0
19 U19-064065	3.0	2.0			1.0
20 U19-065056	2.5	1.0			1.0
21 U19-218023	2.0	1.0			1.0
22 U19-220046	1.0	2.0			1.0
23 U19-243017	2.0	2.0			1.0
24 U20-923004	2.5	2.0			1.0
25 U20-934097	2.5	2.0			1.0

2022 SCN PRELIMINARY IIB

Protein (%)

SCN HG Type	Ames IA	Urbana IL	Decatur MI Inf	Cotesfield NE NI	Mead NE NI
Strain					
1 IA2102	32.8	35.3			34.3
2 LD02-4485 (SCN)	32.2	33.7			32.2
3 U11-917032 (SCN)	33.2	33.8			32.4
4 U14-910097 (SCN)	32.3	33.7			32.7
5 LD19-0959	35.0	35.1			34.7
6 LD19-1713	35.3	35.5			34.0
7 LD19-1844	33.5	35.0			34.8
8 LD19-2412	32.4	34.0			32.7
9 LD19-5726	32.5	33.7			34.0
10 LD19-6090	36.8	37.6			37.3
11 LD19-6211	31.1	31.7			31.2
12 LD19-6359	31.7	33.6			32.7
13 LD19-6548	33.1	34.3			33.1
14 LD20-4671	31.4	34.7			33.5
15 LD20-4988	34.2	35.2			33.9
16 LD20-5050	32.4	33.6			33.2
17 U19-047020	32.7	32.1			31.9
18 U19-049031	31.3	33.5			32.2
19 U19-064065	33.8	33.2			32.7
20 U19-065056	32.3	32.1			32.1
21 U19-218023	33.8	33.7			33.7
22 U19-220046	32.2	32.9			32.8
23 U19-243017	33.4	34.2			32.9
24 U20-923004	31.8	32.9			31.2
25 U20-934097	33.3	31.9			31.5

2022 SCN PRELIMINARY IIB

Oil (%)

	Ames	Urbana	Decatur	Cotesfield	Mead
	IA	IL	MI	NE	NE
SCN HG Type	2.5.7	2.5.7	Inf	NI	NI
Strain					
1 IA2102	19.5	18.6			18.6
2 LD02-4485 (SCN)	18.9	18.9			18.8
3 U11-917032 (SCN)	20.9	21.4			20.0
4 U14-910097 (SCN)	20.5	20.2			20.2
5 LD19-0959	19.1	19.0			19.0
6 LD19-1713	18.4	17.6			18.2
7 LD19-1844	18.9	19.4			19.1
8 LD19-2412	18.7	18.3			18.6
9 LD19-5726	20.8	19.1			19.9
10 LD19-6090	17.6	17.7			17.2
11 LD19-6211	20.7	21.2			20.3
12 LD19-6359	20.8	20.2			19.7
13 LD19-6548	19.8	19.7			20.1
14 LD20-4671	20.0	20.6			20.5
15 LD20-4988	20.0	19.2			19.5
16 LD20-5050	20.5	19.9			19.4
17 U19-047020	18.8	20.5			20.4
18 U19-049031	20.0	19.6			20.2
19 U19-064065	20.4	20.7			20.6
20 U19-065056	19.0	20.6			20.2
21 U19-218023	21.3	20.6			20.6
22 U19-220046	20.3	20.2			20.1
23 U19-243017	19.4	20.1			20.3
24 U20-923004	21.6	20.7			20.9
25 U20-934097	20.0	20.8			20.7