

2022 SCN PRELIMINARY IIA

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 A16204-20	PLtbl	(AR13-331018 x 51-34) x U11-911079	F5		PI 88788, 437654
6 A16204-36	PLtbl	(AR13-331018 x 51-34) x U11-911079	F5		PI 88788, 437654
7 A16204-65	PLtbr	(AR13-331018 x 51-34) x U11-911079	F5		PI 88788, 437654
8 A16204-67	PLtbl	(AR13-331018 x 51-34) x U11-911079	F5		PI 88788, 437654
9 A16204-105	WLtbl/br	(AR13-331018 x 51-34) x U11-911079	F5		PI 88788, 437654
10 A16212-37	PLtbl	(AR13-331018 x PI603915C) x U11-622148	F5		PI 88788, 437654
11 E20012	PGgr	E09014 x E13100	F5		PI 88788
12 E20026	PGy/bf	E15901 x E13100	F5		PI 88788
13 E20154	PGibl	E07051 x E15806	F5	High Oleic	PI 88788
14 E20303T	PGbf	NE3400 x E11128T	F5	High Protein	PI 88788
15 E20316T	PGy/bf	NE3400 x E11128T	F5	High Protein	PI 88788
16 E20327	PGibl	LD02-4485 x E14077	F5		PI 88788
17 E20329	PLt+Gbr/bf	LD02-4485 x E14077	F5		PI 88788
18 E20333	PTbl	LD02-4485 x E14077	F5		PI 88788
19 E20335	PGbf/ibl	LD02-4485 x E14077	F5		PI 88788
20 E20351	PGibl	LD10-10198 x E14077	F5		PI 88788
21 E20352	PLt+Gbl/ibl	LD10-10198 x E14077	F5		PI 88788
22 E20355	PGy/gr	LD10-10198 x E14077	F5		PI 88788
23 E20394	PTbl	E17805-12 x LD13-13228R1a	F5	High Oleic	PI 88788
24 E20404	PTbl	E17805-12 x LD10-10198	F5	High Oleic	PI 88788

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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 A16204-20	R	S	S
6 A16204-36	R	S	S
7 A16204-65	S	R	S
8 A16204-67	R	S	S
9 A16204-105	S	.	R
10 A16212-37	S	S	R
11 E20012	R	S	S
12 E20026	R	S	S
13 E20154	.	S	S
14 E20303T	Het	S	S
15 E20316T	S	S	S
16 E20327	R	S	R
17 E20329	R	S	Het
18 E20333	R	S	S
19 E20335	R	S	S
20 E20351	R	S	Het
21 E20352	R	S	.
22 E20355	R	S	S
23 E20394	R	S	S
24 E20404	R	S	S

2022 SCN PRELIMINARY IIA

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 A16204-20	Rhg1_PI88788	R-(LgA1+Ch13)	Rps1c	S	S	S	R
6 A16204-36	Rhg1_PI88788	R-Ch13	Rps1c	S	S	S	R
7 A16204-65	Rhg1_Peking	R-(LgA1+Ch13)	Rps1c	S	S	S	R
8 A16204-67	Rhg1_PI88788	R-(LgA1+Ch13)	Rps1c	S	S	S	R
9 A16204-105	Rhg4	R-(LgA1+LgN+Ch13)		S	S	S	R
10 A16212-37	Rhg4	R-(LgN+Ch13)		S	S	S	S
11 E20012	Rhg1_PI88788	R-(LgN+Ch13)		S	R	S	R
12 E20026	Rhg1_PI88788	R-(LgA1+LgN+Ch13)	Rps1k + Rps6	S	R	S	R
13 E20154			Het-Rps1k	S	Het	S	R
14 E20303T	Het-Rhg1_PI88788	Het-Ch13		S	R	S	R
15 E20316T	none	R-(LgN+Ch13)		S	Het	S	R
16 E20327	Rhg1_PI88788+Rhg4	R-Ch13		S	S	S	R
17 E20329	Rhg1_PI88788, Het-Rhg4	R-Ch13	Rps1k	S	S	S	R
18 E20333	Rhg1_PI88788	R-(LgA1+Ch13)		S	Het	S	R
19 E20335	Rhg1_PI88788	R-Ch13	Rps1k	S	S	S	R
20 E20351	Rhg1_PI88788, Het-Rhg4	R-(LgA1+LgN+Ch13)		S	Het	S	R
21 E20352	Rhg1_PI88788	R-(LgA1+LgN+Ch13)		S	S	S	R
22 E20355	Rhg1_PI88788	R-(LgA1+Ch13)	Het-Rps1k	S	R		R
23 E20394	Rhg1_PI88788	R-Ch13	Rps1c	S	R	S	R
24 E20404	Rhg1_PI88788	R-(LgN+Ch13)	Rps1c	S	S	S	R

2022 SCN PRELIMINARY IIA

Yield (bu/a)

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	60.8	59.4	53.5	87.4	77.5
2 LD02-4485 (SCN)	57.0	65.9	68.9	85.4	79.8
3 U11-917032 (SCN)	54.3	55.5	43.5	84.3	69.2
4 U14-910097 (SCN)	71.9	79.1	66.7	84.5	87.2
5 A16204-20	55.7	58.5	59.8	74.9	67.3
6 A16204-36	50.5	57.9	61.5	76.4	77.2
7 A16204-65	46.7	58.2	73.2	76.5	70.1
8 A16204-67	43.2	60.6	50.0	72.9	71.1
9 A16204-105	56.9	58.1	63.2	76.3	77.3
10 A16212-37	39.5	60.0	41.9	74.6	79.5
11 E20012	61.3	68.1	51.4	70.8	75.1
12 E20026	53.9	66.1	58.3	86.8	78.9
13 E20154	48.0	47.8	51.2	77.6	58.1
14 E20303T	39.1	58.3	46.5	71.1	74.2
15 E20316T	37.2	62.3	47.1	80.1	82.3
16 E20327	54.5	61.8	53.6	86.9	79.5
17 E20329	59.3	63.2	70.0	75.9	86.7
18 E20333	61.3	65.4	64.6	84.7	75.0
19 E20335	69.6	62.6	65.0	79.8	83.0
20 E20351	63.4	66.0	61.4	82.9	86.3
21 E20352	67.2	63.1	59.9	85.7	82.4
22 E20355	61.0	72.4	68.3	86.6	84.9
23 E20394	49.3	53.0	53.8	73.2	62.9
24 E20404	45.9	55.2	60.9	52.7	65.1
Mean	54.5	61.6	58.0	78.7	76.3
C.V. %	9.8	7.5	15.7	6.3	6.7
LSD(2-sided,.05)	11.0	9.6	18.9	12.7	12.6
Replications	2	2	2	2	2
Row spacing (in.)	30	30	30	30	30

2022 SCN PRELIMINARY IIA

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	8	15	17	1	12
2 LD02-4485 (SCN)	10	6	3	6	8
3 U11-917032 (SCN)	14	21	23	9	20
4 U14-910097 (SCN)	1	1	5	8	1
5 A16204-20	12	16	13	18	21
6 A16204-36	16	20	9	15	14
7 A16204-65	19	18	1	14	19
8 A16204-67	21	13	20	21	18
9 A16204-105	11	19	8	16	13
10 A16212-37	22	14	24	19	9
11 E20012	5	3	18	23	15
12 E20026	15	4	14	4	11
13 E20154	18	24	19	13	24
14 E20303T	23	17	22	22	17
15 E20316T	24	11	21	11	7
16 E20327	13	12	16	3	10
17 E20329	9	8	2	17	2
18 E20333	6	7	7	7	16
19 E20335	2	10	6	12	5
20 E20351	4	5	10	10	3
21 E20352	3	9	12	5	6
22 E20355	7	2	4	2	4
23 E20394	17	23	15	20	23
24 E20404	20	22	11	24	22

2022 SCN PRELIMINARY IIA

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			9/24
2 LD02-4485 (SCN)	0	1			2
3 U11-917032 (SCN)	-2	-2			-5
4 U14-910097 (SCN)	8	6			4
5 A16204-20	1	3			3
6 A16204-36	1	5			1
7 A16204-65	2	5			5
8 A16204-67	-2	1			-1
9 A16204-105	4	5			5
10 A16212-37	0	4			3
11 E20012	4	4			4
12 E20026	-2	-1			-3
13 E20154	-4	-2			-2
14 E20303T	0	5			7
15 E20316T	0	5			7
16 E20327	-4	0			0
17 E20329	0	2			5
18 E20333	6	4			1
19 E20335	6	4			6
20 E20351	4	5			6
21 E20352	6	5			6
22 E20355	8	7			9
23 E20394	1	1			-2
24 E20404	2	5			2
Planted	6/04	5/17	5/10	5/28	5/28

2022 SCN PRELIMINARY IIA

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	2.5	1.5			1.0
2 LD02-4485 (SCN)	2.0	1.5			1.0
3 U11-917032 (SCN)	2.0	1.0			1.0
4 U14-910097 (SCN)	2.0	2.0			1.0
5 A16204-20	2.0	1.5			1.0
6 A16204-36	1.5	1.5			1.0
7 A16204-65	2.0	1.5			1.0
8 A16204-67	1.0	1.5			1.0
9 A16204-105	1.5	1.0			1.0
10 A16212-37	1.5	1.5			1.0
11 E20012	1.5	1.5			1.0
12 E20026	1.5	1.8			1.0
13 E20154	1.0	1.0			1.0
14 E20303T	1.5	1.8			1.5
15 E20316T	1.5	1.5			1.0
16 E20327	1.0	1.0			1.0
17 E20329	1.5	1.0			1.0
18 E20333	2.0	1.3			1.0
19 E20335	2.5	1.5			1.0
20 E20351	1.5	1.4			1.0
21 E20352	2.0	1.8			1.0
22 E20355	2.0	1.8			1.0
23 E20394	2.0	1.8			1.0
24 E20404	2.0	1.8			1.0

2022 SCN PRELIMINARY IIA

Height (inches)

	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	36	33			38
2 LD02-4485 (SCN)	33	32			38
3 U11-917032 (SCN)	29	32			36
4 U14-910097 (SCN)	37	34			36
5 A16204-20	39	42			45
6 A16204-36	37	38			44
7 A16204-65	37	40			35
8 A16204-67	34	42			48
9 A16204-105	33	36			40
10 A16212-37	34	40			42
11 E20012	33	34			38
12 E20026	36	36			38
13 E20154	30	31			33
14 E20303T	36	40			42
15 E20316T	33	38			39
16 E20327	32	33			38
17 E20329	32	35			36
18 E20333	37	38			41
19 E20335	39	38			42
20 E20351	37	38			43
21 E20352	39	40			44
22 E20355	39	39			44
23 E20394	38	39			43
24 E20404	37	37			44

2022 SCN PRELIMINARY IIA

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	16.4	17.6			17.3
2 LD02-4485 (SCN)	16.4	16.9			14.9
3 U11-917032 (SCN)	16.4	16.4			15.2
4 U14-910097 (SCN)	15.8	16.7			14.7
5 A16204-20	15.5	15.0			14.5
6 A16204-36	13.8	14.7			13.5
7 A16204-65	15.8	15.1			14.7
8 A16204-67	15.2	15.3			14.2
9 A16204-105	15.0	15.2			13.9
10 A16212-37	14.6	15.6			14.2
11 E20012	18.6	19.6			17.5
12 E20026	18.0	19.0			17.9
13 E20154	20.7	21.2			19.3
14 E20303T	17.0	18.3			17.8
15 E20316T	16.6	17.5			17.5
16 E20327	17.2	18.0			16.9
17 E20329	16.6	17.5			15.9
18 E20333	17.0	16.1			15.1
19 E20335	17.9	18.0			16.5
20 E20351	16.4	16.3			14.8
21 E20352	15.3	15.0			14.5
22 E20355	16.8	17.0			16.2
23 E20394	16.0	16.0			15.0
24 E20404	14.8	15.0			13.4

2022 SCN PRELIMINARY IIA

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	1.5	3.0			1.0
2 LD02-4485 (SCN)	1.5	2.0			1.0
3 U11-917032 (SCN)	2.0	3.0			1.0
4 U14-910097 (SCN)	1.0	2.0			1.0
5 A16204-20	1.5	2.0			1.0
6 A16204-36	2.0	2.0			1.0
7 A16204-65	2.0	3.0			1.0
8 A16204-67	1.5	2.0			1.0
9 A16204-105	1.5	2.0			1.0
10 A16212-37	1.5	2.0			1.0
11 E20012	2.5	2.0			1.0
12 E20026	2.0	1.0			1.0
13 E20154	1.5	3.0			1.0
14 E20303T	1.0	3.0			1.0
15 E20316T	1.5	2.0			1.0
16 E20327	2.0	2.0			1.0
17 E20329	1.5	3.0			1.0
18 E20333	2.0	2.0			1.0
19 E20335	2.5	2.0			1.0
20 E20351	2.0	2.0			1.0
21 E20352	2.0	2.0			1.0
22 E20355	2.5	2.0			1.0
23 E20394	2.5	2.0			1.0
24 E20404	2.5	2.0			1.0

2022 SCN PRELIMINARY IIA

Protein (%)

SCN HG Type	Ames IA	Urbana IL	Decatur MI Inf	Cotesfield NE NI	Mead NE NI
Strain					
1 IA2102	31.6	35.1			34.3
2 LD02-4485 (SCN)	31.7	32.6			32.3
3 U11-917032 (SCN)	34.4	33.3			32.4
4 U14-910097 (SCN)	33.3	33.9			32.5
5 A16204-20	35.0	35.4			35.4
6 A16204-36	34.6	36.3			35.4
7 A16204-65	34.1	36.0			34.4
8 A16204-67	34.5	35.7			34.2
9 A16204-105	31.9	35.1			33.1
10 A16212-37	30.7	34.3			31.8
11 E20012	31.8	33.2			33.6
12 E20026	32.6	32.4			32.3
13 E20154	35.8	37.0			35.1
14 E20303T	35.4	37.2			36.8
15 E20316T	34.8	37.9			36.1
16 E20327	33.0	33.6			32.6
17 E20329	31.3	33.2			32.9
18 E20333	32.9	33.4			31.6
19 E20335	32.7	34.2			33.2
20 E20351	32.6	34.7			34.2
21 E20352	32.9	34.4			33.0
22 E20355	32.6	34.5			33.1
23 E20394	36.7	36.7			34.5
24 E20404	37.0	39.4			36.1

2022 SCN PRELIMINARY IIA

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	20.2	18.6			18.3
2 LD02-4485 (SCN)	19.7	19.6			19.5
3 U11-917032 (SCN)	20.0	20.9			20.3
4 U14-910097 (SCN)	19.8	19.4			20.5
5 A16204-20	18.4	17.6			18.7
6 A16204-36	18.4	18.1			18.8
7 A16204-65	18.0	17.1			17.8
8 A16204-67	19.1	17.6			18.7
9 A16204-105	19.4	18.3			19.7
10 A16212-37	19.9	18.9			19.6
11 E20012	19.6	18.8			19.4
12 E20026	20.2	20.2			19.9
13 E20154	19.0	17.8			18.5
14 E20303T	19.9	17.7			18.1
15 E20316T	20.2	17.6			18.7
16 E20327	20.7	19.7			19.1
17 E20329	21.1	19.5			19.2
18 E20333	19.8	19.6			20.2
19 E20335	18.8	19.0			19.3
20 E20351	19.6	18.6			18.6
21 E20352	19.5	18.6			18.6
22 E20355	18.9	18.4			18.6
23 E20394	19.1	18.0			19.4
24 E20404	17.3	15.5			16.8