

2019 SCN UNIFORM 00

Strain	FPhlm	Parentage	Previous testing	Gen. Comp.	Traits	SCN Resistance source
1 MN0083	WTy	MN97-121138 x MN0091	1	F5	Rps6	None
2 MN0095	PGibl	M92-270029 x M93-313135	4	F5	Rps1	None
3 ND Rolette	PGbf	MN0095 x ND05-17649	18 UT 00	F4		None
4 MN0208CN (SCN)	WTy	MN0902CN x MN0201	4	F5	Rps1a	PI 88788
5 M12-357057	WTy	ND07-4635 x M06-274098	1	F5		PI 88788
6 M13-257047	PGy	M07-209037 x LD08-12441a	New	F5		PI 88788
7 MCH13-109053	WTbr+y	M06-289264 x M06-380029	1	F5		PI 88788
8 MCH13-109062	P+WT+Gy	M06-289264 x M06-380029	1	F5		PI 88788
9 ND16-2745	PGbf	ND10-3459 x ND07-2205	New	F4		PI 88788
10 ND16-8064	PGy	ND10-3460 x ND10-3323	New	F4		PI 88788
11 ND16-8909	WGy	ND10-2763 x ND07-3761	New	F4		PI 88788
12 ND16-9606	WGy	ND10-2763 x M05-363022	New	F4		PI 88788

Entry	IL SCN screening										MN
	cyst counts			HG 0		cyst counts			HG 2.5.7		IDC score
	rep1	rep2	rep3	FI	rating	rep1	rep2	rep3	FI	rating	
1 MN0083	49	38	54	21	R	161	174	159	60	NR	1.7
2 MN0095	87	73	84	36	MR	245	287	303	102	NR	1.5
3 ND Rolette	91	79	108	42	LR	303	234	313	104	NR	1.2
4 MN0208CN (SCN)	19	13	26	9	HR	211	196	217	76	NR	2.8
5 M12-357057	2	3	29	5	HR	0*	81	90	31	MR	1.5
6 M13-257047	35	28	29	14	R	250	223	239	87	NR	2.8
7 MCH13-109053	18	19	25	9	HR	*98	152	*88	56	LR	1.7
8 MCH13-109062	24	19	36	12	R	2*	141	268	75	NR	1.8
9 ND16-2745	63	61	75	30	MR	219	234	204	80	NR	2.0
10 ND16-8064	34	29	27	13	R	165	149	166	58	LR	2.2
11 ND16-8909	33	27	19	12	R	214	207	223	78	NR	4.0
12 ND16-9606	61	48	25	20	R	201	181	211	72	NR	3.2

(\*)=small root, (.)=missing sample, (\*\*)=rep data too variable to rate

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## 2019 Summary

Entry	Locations	Yield						Maturity date	Lodging score	Height in.	Seed			
		All		Infested		Non-infested					weight g/100	quality score	protein @13%	oil @13%
		bu/a	rank	bu/a	rank	bu/a	rank							
		<b>3</b>		<b>1*</b>		<b>2</b>		<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>1 MN0083</b>		<b>39.6</b>	<b>12</b>	41.8	12	38.6	11	9/16	1.0	30	14.9	1.7	34.6	17.5
<b>2 MN0095</b>		<b>46.1</b>	<b>8</b>	52.2	9	43.0	7	1	1.0	30	13.0	1.7	34.0	17.9
<b>3 ND Rolette</b>		<b>51.7</b>	<b>4</b>	60.4	6	47.3	3	-2	1.0	31	12.8	1.3	33.6	17.7
<b>4 MN0208CN (SCN)</b>		<b>42.5</b>	<b>11</b>	47.6	11	39.9	10	5	1.5	33	14.2	1.4	35.4	17.6
<b>5 M12-357057</b>		<b>45.4</b>	<b>9</b>	61.6	5	37.3	12	2	1.0	28	15.8	1.6	34.0	16.4
<b>6 M13-257047</b>		<b>50.0</b>	<b>5</b>	62.3	4	43.9	6	7	1.0	32	18.4	1.7	34.2	17.8
<b>7 MCH13-109053</b>		<b>47.6</b>	<b>7</b>	57.5	7	42.6	8	6	1.3	29	14.2	1.3	32.9	18.2
<b>8 MCH13-109062</b>		<b>43.6</b>	<b>10</b>	48.2	10	41.3	9	5	1.3	29	12.8	1.3	32.9	17.8
<b>9 ND16-2745</b>		<b>49.4</b>	<b>6</b>	53.0	8	47.6	2	6	1.0	27	15.4	1.3	33.3	17.9
<b>10 ND16-8064</b>		<b>57.8</b>	<b>1</b>	67.8	1	52.8	1	6	1.0	32	15.0	1.7	32.8	17.8
<b>11 ND16-8909</b>		<b>53.3</b>	<b>2</b>	67.4	2	46.3	5	2	1.0	26	16.1	1.4	31.8	18.2
<b>12 ND16-9606</b>		<b>53.2</b>	<b>3</b>	65.2	3	47.1	4	1	1.0	28	16.0	1.6	32.4	18.3
Mean		<b>48.3</b>		58.1		44.0				30	14.9	1.5	33.5	17.8
LSD(.05)		<b>5.0</b>		9.4		5.5								
C.V. %		<b>10.9</b>		9.7		10.8								
Replications		<b>9</b>		3		6								

\*Colfax, ND yield data not included in means

## 2 Year Summary

Entry	Locations	Yield						Maturity date	Lodging score	Height in.	Seed			
		All		Infested		Non-infested					weight g/100	quality score	protein @13%	oil @13%
		bu/a	rank	bu/a	rank	bu/a	rank							
		<b>6</b>		<b>3</b>		<b>3</b>		<b>7</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>1 MN0083</b>		<b>40.2</b>	<b>6</b>	40.8	6	39.6	6	9/12	1.0	26	15.3	1.7	35.7	17.3
<b>2 MN0095</b>		<b>46.3</b>	<b>2</b>	46.0	4	46.7	1	2	1.0	26	13.6	1.8	34.8	18.0
<b>4 MN0208CN (SCN)</b>		<b>44.1</b>	<b>5</b>	44.5	5	43.8	4	4	1.3	30	14.3	1.8	36.3	17.5
<b>5 M12-357057</b>		<b>46.3</b>	<b>3</b>	51.0	1	41.6	5	2	1.0	25	16.0	2.1	35.3	16.3
<b>7 MCH13-109053</b>		<b>48.1</b>	<b>1</b>	50.5	2	45.8	2	6	1.1	28	14.6	1.5	33.9	18.1
<b>8 MCH13-109062</b>		<b>45.6</b>	<b>4</b>	46.1	3	45.1	3	4	1.2	26	13.5	1.5	33.8	17.7

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SCN HG Type	Yield (bu/a)			
		Thief River		
	Gary MN Inf	Colfax ND 2.5.7	Falls MN NI	Ottawa ON NI
Strain				
<b>1 MN0083</b>	41.8	23.7	43.2	34.5
<b>2 MN0095</b>	52.2	32.5	49.2	36.7
<b>3 ND Rolette</b>	60.4	26.0	56.2	39.3
<b>4 MN0208CN (SCN)</b>	47.6	30.6	42.9	37.9
<b>5 M12-357057</b>	61.6	27.6	43.0	30.8
<b>6 M13-257047</b>	62.3	17.1	50.9	37.2
<b>7 MCH13-109053</b>	57.5	22.3	49.7	35.5
<b>8 MCH13-109062</b>	48.2	25.7	48.0	32.7
<b>9 ND16-2745</b>	53.0	22.8	54.7	40.5
<b>10 ND16-8064</b>	67.8	34.8	62.3	44.1
<b>11 ND16-8909</b>	67.4	21.7	56.9	35.9
<b>12 ND16-9606</b>	65.2	32.3	53.0	40.0
<b>Average</b>	58.1	26.4	52.0	37.1
<b>LSD(2-sided,.05)</b>	9.4	8.3	10.8	7.1
<b>C.V. %</b>	9.7	19.7	12.5	8.8
<b>Replications</b>	3	3	3	3
<b>Row spacing (in.)</b>	10	30	10	15

## 2019 SCN UNIFORM 00

SCN HG Type	Yield (rank)			
		Thief River		
	Gary MN	Colfax ND	Falls MN	Ottawa ON
	Inf	2.5.7	NI	NI
Strain				
<b>1 MN0083</b>	12	8	10	3
<b>2 MN0095</b>	9	2	8	6
<b>3 ND Rolette</b>	6	6	3	9
<b>4 MN0208CN (SCN)</b>	11	4	12	8
<b>5 M12-357057</b>	5	5	11	1
<b>6 M13-257047</b>	4	12	6	7
<b>7 MCH13-109053</b>	7	10	7	4
<b>8 MCH13-109062</b>	10	7	9	2
<b>9 ND16-2745</b>	8	9	4	11
<b>10 ND16-8064</b>	1	1	1	12
<b>11 ND16-8909</b>	2	11	2	5
<b>12 ND16-9606</b>	3	3	5	10

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**Maturity**

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
	Inf	2.5.7	NI	NI
Strain				
<b>1 MN0083</b>	9/24	9/16	9/21	9/03
<b>2 MN0095</b>	-4	-1	3	5
<b>3 ND Rolette</b>	-6	-1	-2	3
<b>4 MN0208CN (SCN)</b>	-3	3	7	11
<b>5 M12-357057</b>	-4	4	3	6
<b>6 M13-257047</b>	-2	15	8	7
<b>7 MCH13-109053</b>	1	8	6	10
<b>8 MCH13-109062</b>	0	6	5	8
<b>9 ND16-2745</b>	0	8	4	10
<b>10 ND16-8064</b>	-2	9	6	11
<b>11 ND16-8909</b>	-4	9	-1	5
<b>12 ND16-9606</b>	-4	4	0	4
<b>Planted</b>	5/17	6/5	5/18	5/21

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**Lodging (score)**

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
Strain	Inf	2.5.7	NI	NI
<b>1 MN0083</b>	1.0	1.0	1.0	1.0
<b>2 MN0095</b>	1.0	1.0	1.0	1.0
<b>3 ND Rolette</b>	1.0	1.0	1.0	1.0
<b>4 MN0208CN (SCN)</b>	3.0	1.0	1.0	1.0
<b>5 M12-357057</b>	1.0	1.0	1.0	1.0
<b>6 M13-257047</b>	1.0	1.0	1.0	1.0
<b>7 MCH13-109053</b>	2.0	1.0	1.0	1.0
<b>8 MCH13-109062</b>	2.0	1.0	1.0	1.0
<b>9 ND16-2745</b>	1.0	1.0	1.0	1.0
<b>10 ND16-8064</b>	1.0	1.0	1.0	1.0
<b>11 ND16-8909</b>	1.0	1.0	1.0	1.0
<b>12 ND16-9606</b>	1.0	1.0	1.0	1.0

**Height (inches)**

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
Strain	Inf	2.5.7	NI	NI
<b>1 MN0083</b>	35		31	25
<b>2 MN0095</b>	36		30	24
<b>3 ND Rolette</b>	37		32	25
<b>4 MN0208CN (SCN)</b>	39		33	28
<b>5 M12-357057</b>	34		28	20
<b>6 M13-257047</b>	39		33	24
<b>7 MCH13-109053</b>	34		28	24
<b>8 MCH13-109062</b>	32		30	25
<b>9 ND16-2745</b>	31		27	22
<b>10 ND16-8064</b>	38		33	23
<b>11 ND16-8909</b>	30		26	21
<b>12 ND16-9606</b>	34		29	22

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## Seed Weight (g/100)

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
	Inf	2.5.7	NI	NI
Strain				
1 MN0083	16.4		14.7	13.7
2 MN0095	13.5		12.5	13.0
3 ND Rolette	13.4		12.0	13.0
4 MN0208CN (SCN)	13.6		14.4	14.5
5 M12-357057	16.2		15.9	15.4
6 M13-257047	18.8		17.8	18.6
7 MCH13-109053	14.1		14.6	13.9
8 MCH13-109062	12.4		12.8	13.2
9 ND16-2745	15.8		14.8	15.6
10 ND16-8064	14.4		15.7	14.9
11 ND16-8909	16.6		15.9	15.7
12 ND16-9606	16.4		15.4	16.2

## Seed Quality (score)

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
	Inf	2.5.7	NI	NI
Strain				
1 MN0083	1.0		2.0	2.0
2 MN0095	1.0		2.0	2.0
3 ND Rolette	1.0		1.0	2.0
4 MN0208CN (SCN)	1.0		1.0	2.3
5 M12-357057	1.0		1.0	2.7
6 M13-257047	1.0		1.0	3.0
7 MCH13-109053	1.0		1.0	2.0
8 MCH13-109062	1.0		1.0	2.0
9 ND16-2745	1.0		1.0	2.0
10 ND16-8064	1.0		1.0	3.0
11 ND16-8909	1.0		1.0	2.3
12 ND16-9606	1.0		1.0	2.7

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Protein (%)

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
	Inf	2.5.7	NI	NI
Strain				
1 MN0083	.		34.6	34.7
2 MN0095	34.2		34.2	33.5
3 ND Rolette	33.4		32.8	34.7
4 MN0208CN (SCN)	35.8		35.0	35.4
5 M12-357057	34.1		33.4	34.5
6 M13-257047	34.1		33.7	34.9
7 MCH13-109053	33.0		33.7	32.0
8 MCH13-109062	33.6		32.7	32.3
9 ND16-2745	33.0		33.3	33.4
10 ND16-8064	32.9		33.2	32.4
11 ND16-8909	32.4		31.9	31.1
12 ND16-9606	32.2		32.7	32.3

Oil (%)

SCN HG Type	Thief River			
	Gary	Colfax	Falls	Ottawa
	MN	ND	MN	ON
	Inf	2.5.7	NI	NI
Strain				
1 MN0083	.		16.6	18.4
2 MN0095	17.8		17.1	18.8
3 ND Rolette	17.6		17.4	18.2
4 MN0208CN (SCN)	17.3		17.0	18.6
5 M12-357057	15.4		16.8	16.9
6 M13-257047	17.8		17.6	18.1
7 MCH13-109053	17.9		18.3	18.6
8 MCH13-109062	17.6		17.6	18.3
9 ND16-2745	16.4		18.4	19.0
10 ND16-8064	17.5		17.5	18.3
11 ND16-8909	17.7		18.2	18.6
12 ND16-9606	18.3		18.3	18.3