

2011 Standard Seed Treatment (2700 Series)

Location: Inkster, ND
Plot design: 2 rows X 30 ft. X 4 reps; RCBD
Planting date: June 4, 2011
Row width: 36 inches
Plant spacing: 14 inches
Cultivar: Ranger Russet
50% Emergence: June 22

Fertilizer: Broadcast: 61#N, 200#K, 30#S; May 26
Starter: 29#N, 100#P; June 4
Sidedress: 59#N; June 30
Fertigation: 30#N; August 9
20#N; August 16

Herbicide: Matrix (1.5 oz/a) + Ad-Wet 90 Plus (1 pt/100 gal); July 1
Insecticide: Admire Pro (8.7 oz/a) + Ultra Flourish (12.2 oz/a); IF at plant
Kaiso (2.0 oz/a); August 11

Fungicide application dates:

July 15	Bravo Zn (2.125 pt/a)
July 22	Headline (8.0 oz/a) + Manzate (2.0 lb/a)
July 28	Revus Top (7.0 oz/a)
Aug. 4	Gavel (2.0 lb/a)
Aug. 11	Revus Top (7.0 oz/a)
Aug. 18	Gavel (2.0 lb/a)
Aug. 26	Revus Top (7.0 oz/a)
Sept. 2	Gavel (2.0 lb/a)
Sept. 8	Revus Top (7.0 oz/

Vinekill: Killing frost; September 14
Rotobeat; October 17

Harvest: October 21 - 22

Grade: October 28 – November 21

Post-harvest tuber evaluation: February 6, 2012; 108 DAH

Stand: Number emerged of 25 planted; June 30 (26 DAP), July 6 (32 DAP),
July 12 (DAP 38)

Data: Field ratings July 21- 25 (47-51 DAP), Aug. 31 - Sept. 8 (88 – 96 DAP)

Vigor: 1-4; 1 = low, 4 = high

Decay: Percent decay of seed piece; 0 = no decay, 100 = complete decay

Stems: total number of stems

Stems with Rhizoctonia: number of stems with visible lesions due to Rhizoctonia

Stolons: total number of stolons

Stolons with Rhizoctonia: number of stolons with visible lesions due to Rhizoctonia

Yield: total yield in hundredweight (cwt)

Grade: Commercial grade by Ag World Support Systems, Grand Forks, ND

Standard Seed Treatment 2011 - Inkster Series 2700

Treatment	Rate	Application	Company	Stand			
				26 DAP	32 DAP	38 DAP	
2701	Untreated	-		90.5	96.0	92.0	
2702	LI 6194 + Maxim 4FS	0.2 fl oz / cwt + 0.08 fl oz / cwt	Seed	Loveland	95.5	99.0	96.5
2703	LI 6194 + Maxim 4FS	0.4 fl oz / cwt + 0.08 fl oz / cwt	Seed	Loveland	91.5	97.5	193.0
2704	LI 6194 + Maxim 4FS	0.6 fl oz / cwt + 0.08 fl oz / cwt	Seed	Loveland	92.5	97.5	98.5
2705	A14382	0.226 fl oz / cwt	Seed	Syngenta	95.0	95.0	95.0
2706	A18232	0.308 fl oz / cwt	Seed	Syngenta	91.5	95.5	97.0
2707	Cruiser 5FS + A18232	0.051 fl oz / cwt + 0.308 fl oz / cwt	Seed	Syngenta	91.0	90.0	93.0
2708	Admire Pro 4.6 SC Moncoat MZ 7.5 DP A18232 +	0.35 fl oz / cwt 12 oz / cwt 0.308 fl oz / cwt +	Seed	Syngenta	98.0	95.0	97.5
2709	A17960	0.153 fl oz / cwt	Seed	Syngenta	93.5	93.5	94.5
2710	Nubark Gold	1 lb / cwt	Seed	WECO	95.5	95.0	97.0
2711	Nubark Mancozeb 6%	1 lb / cwt	Seed	WECO	98.0	99.5	97.0
2712	Nubark Mancozeb AS	1 lb / cwt	Seed	WECO	97.5	95.0	97.5
2713	Maxim 4 FS Nubark Gold	0.08 fl oz / cwt 1 lb / cwt	Seed	WECO	95.0	94.5	93.5
2714	Cabrio Plus	2.9 lb / a	In-Furrow	BASF	92.0	98.0	97.0
2715	Priaxor	6.74 fl oz / a	In-Furrow	BASF	94.0	95.5	93.0
2716	BAS 700 04F	3.75 fl oz / a	In-Furrow	BASF	91.5	95.5	96.5
2717	Headline SC	9 fl oz / a	In-Furrow	BASF	95.0	95.5	93.5
2718	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.3 oz / 1000 row ft	Seed In-Furrow	Sipcam	97.0	98.5	97.0
2719	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.55 oz / 1000 row ft	Seed In-Furrow	Sipcam	97.5	96.0	94.0
2720	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.83 oz / 1000 row ft	Seed In-Furrow	Sipcam	95.5	93.5	97.0
2721	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.3 oz / 1000 row ft	Seed In-Furrow	Sipcam	96.5	97.0	91.5
2722	Quadris	0.6 fl oz / 1000 row ft	Hilling				
2722	Serenade	4.4 fl oz / 1000 row ft	In-Furrow	Agraquest	95.0	92.5	97.0
2723	Serenade	8.8 fl oz / 1000 row ft	In-Furrow	Agraquest	96.5	97.0	95.5
2724	GWN-9935 70-DF	0.79 oz / 1000 row ft	In-Furrow	Gowan	94.0	93.0	92.5
2725	Vertisan EC	1.6 fl oz / 1000 row ft	In-Furrow	Dupont	96.0	92.5	95.0
2726	Picoxy SC	0.5 fl oz / 1000 row ft	In-Furrow	Dupont	96.0	97.5	92.0
2727	Picoxy SC	1.3 fl oz / 1000 row ft	In-Furrow	Dupont	94.5	97.0	96.0
2728	Q8Y78 SC	1.6 fl oz / 1000 row ft	In-Furrow	Dupont	95.5	97.0	95.5
2729	Maxim 4FS Vertisan EC	0.08 fl oz / cwt 1.6 fl oz / 1000 row ft	Seed In-Furrow	Dupont	97.0	94.5	97.0
2730	Maxim 4FS	0.08 fl oz / cwt	Seed	LL control	97.0	96.0	93.0
2731	Maxim 4FS Quadris	0.08 fl oz / cwt 0.6 fl oz / 1000 ft	Seed in-Furrow		96.5	97.0	92.5
2732	Quadris	0.6 fl oz / 1000 ft	In-Furrow	Sipcam Control	94.0	94.5	94.0
2733	Moncut 70 DF	0.79 oz / 1000 ft	In-Furrow	BASF Control	92.5	95.5	90.0
2734	6% Mancozeb	1 lb / cwt	Seed	Control	96.0	94.5	97.0
2735	Phostrol	1:10	Seed	Control	97.0	95.5	93.5
LSD $p=0.05$					4.54	NS	NS

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		Rated 47 DAP							
Treatment	Rate	Application	% stem w Rhizoc	%stem girdled	% stolon w Rhizoc	%stolon girdled	vigor	Decay	
2701	Untreated	-	40.7	23.9	7.4	3.1	2.7	0.3	
2702	LI 6194 + Maxim 4FS	0.2 fl oz / cwt + 0.08 fl oz / cwt	43.7	4.0	22.7	7.3	3.0	5.5	
2703	LI 6194 + Maxim 4FS	0.4 fl oz / cwt + 0.08 fl oz / cwt	22.5	1.7	13.6	3.9	2.8	15.0	
2704	LI 6194 + Maxim 4FS	0.6 fl oz / cwt + 0.08 fl oz / cwt	34.0	0.0	6.6	2.1	2.9	3.3	
2705	A14382	0.226 fl oz / cwt	13.2	4.5	0.0	0.0	2.6	4.5	
2706	A18232	0.308 fl oz / cwt	60.4	50.4	23.8	5.6	2.5	1.3	
2707	Cruiser 5FS + A18232	0.051 fl oz / cwt + 0.308 fl oz / cwt	28.7	0.0	24.0	2.5	3.0	10.0	
2708	Admire Pro 4.6 SC Moncoat MZ 7.5 DP	0.35 fl oz / cwt 12 oz / cwt	34.2	53.9	11.0	5.6	2.5	0.1	
2709	A18232 + A17960	0.308 fl oz / cwt + 0.153 fl oz / cwt	30.3	1.7	5.8	0.8	2.5	2.5	
2710	Nubark Gold	1 lb / cwt	46.4	10.8	17.6	7.2	2.6	15.6	
2711	Nubark Mancozeb 6%	1 lb / cwt	57.2	12.3	28.4	10.4	2.5	15.5	
2712	Nubark Mancozeb AS	1 lb / cwt	71.8	28.8	32.8	13.6	2.6	6.8	
2713	Maxim 4 FS Nubark Gold	0.08 fl oz / cwt 1 lb / cwt	13.2	0.0	10.4	2.5	2.6	3.0	
2714	Cabrio Plus	2.9 lb / a	75.0	53.8	33.3	19.6	2.4	12.0	
2715	Priaxor	6.74 fl oz / a	59.2	21.5	18.1	11.0	2.5	0.0	
2716	BAS 700 04F	3.75 fl oz / a	53.3	29.3	16.6	6.7	2.8	10.3	
2717	Headline SC	9 fl oz / a	73.8	39.6	28.7	5.7	2.6	14.3	
2718	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.3 oz / 1000 row ft	41.4	6.2	8.6	3.0	2.9	1.8	

Treatment	Rate	Application	% stem w Rhizoc	%stem girdled	% stolon w Rhizoc	%stolon girdled	vigor	Decay	
2719	Maxim 4FS	0.08 fl oz / cwt	Seed	26.4	6.8	10.6	1.5	2.5	0.0
	ActinoGrow AG	0.55 oz / 1000 row ft	In-Furrow						
2720	Maxim 4FS	0.08 fl oz / cwt	Seed	37.5	5.1	19.3	4.1	2.9	0.0
	ActinoGrow AG	0.83 oz / 1000 row ft	In-Furrow						
2721	Maxim 4FS	0.08 fl oz / cwt	Seed	62.8	0.8	36.9	9.4	2.9	8.0
	ActinoGrow AG	0.3 oz / 1000 row ft	In-Furrow						
	Quadris	0.6 fl oz / 1000 row ft	Hilling						
2722	Serenade	4.4 fl oz / 1000 row ft	In-Furrow	67.5	31.3	21.1	13.1	2.6	4.6
2723	Serenade	8.8 fl oz / 1000 row ft	In-Furrow	59.7	33.3	18.5	13.9	2.4	2.0
2724	GWN-9935 70-DF	0.79 oz / 1000 row ft	In-Furrow	36.3	13.3	3.8	2.9	2.8	11.5
2725	Vertisan EC	1.6 fl oz / 1000 row ft	In-Furrow	62.5	27.6	20.7	4.8	2.8	9.5
2726	Picoxy SC	0.5 fl oz / 1000 row ft	In-Furrow	78.9	45.8	38.9	16.8	2.5	9.0
2727	Picoxy SC	1.3 fl oz / 1000 row ft	In-Furrow	84.1	43.7	43.1	22.7	2.6	12.5
2728	Q8Y78 SC	1.6 fl oz / 1000 row ft	In-Furrow	55.3	84.1	38.2	12.6	2.3	10.0
2729	Maxim 4FS	0.08 fl oz / cwt	Seed	42.7	5.4	17.7	4.9	2.9	6.3
	Vertisan EC	1.6 fl oz / 1000 row ft	In-Furrow						
2730	Maxim 4FS	0.08 fl oz / cwt	Seed	32.9	2.3	17.7	2.1	2.7	4.8
2731	Maxim 4FS	0.08 fl oz / cwt	Seed	7.2	0.0	1.6	0.0	2.9	9.0
	Quadris	0.6 fl oz / 1000 ft	in-Furrow						
2732	Quadris	0.6 fl oz / 1000 ft	In-Furrow	56.3	16.4	21.0	6.3	2.6	10.8
2733	Moncut 70 DF	0.79 oz / 1000 ft	In-Furrow	55.2	26.2	17.6	12.1	2.7	0.5
2734	6% Mancozeb	1 lb / cwt	Seed	62.1	34.6	16.6	7.9	2.8	1.3
2735	Phostrol	1:10	Seed	59.9	26.3	21.9	9.8	2.9	12.5
LSD $p=0.05$				24.1	24.9	16.0	10.2	0.3	NS

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			Rated 90 DAP							yield cwt/a	
Treatment	Rate	Application	% stem w Rhizoc	%stem girdled	% stolon w Rhizoc	%stolon girdled	vigor	# Tuber	Tuber > 3 oz		
2701	Untreated	-	64.6	43.3	23.1	14.4	3.5	8.1	4.1	335.5	
2702	LI 6194 + Maxim 4FS	0.2 fl oz / cwt + 0.08 fl oz / cwt	Seed	6.0	0.0	2.5	0.0	3.2	9.6	4.7	363.4
2703	LI 6194 + Maxim 4FS	0.4 fl oz / cwt + 0.08 fl oz / cwt	Seed	34.6	5.8	7.1	2.0	3.5	8.0	4.7	382.8
2704	LI 6194 + Maxim 4FS	0.6 fl oz / cwt + 0.08 fl oz / cwt	Seed	5.6	0.0	0.0	0.0	3.3	8.0	4.7	338.2
2705	A14382	0.226 fl oz / cwt	Seed	23.8	5.2	3.5	0.5	3.4	10.7	5.8	338.6
2706	A18232	0.308 fl oz / cwt	Seed	3.8	0.0	0.0	0.0	3.4	8.7	4.9	331.6
2707	Cruiser 5FS + A18232	0.051 fl oz / cwt + 0.308 fl oz / cwt	Seed	14.6	1.3	0.0	0.0	3.3	7.2	4.2	376.0
2708	Admire Pro 4.6 SC Moncoat MZ 7.5 DP	0.35 fl oz / cwt 12 oz / cwt	Seed	2.5	0.0	0.0	0.0	3.5	6.7	4.2	361.6
2709	A18232 + A17960	0.308 fl oz / cwt + 0.153 fl oz / cwt	Seed	17.5	2.5	0.0	0.0	3.2	5.7	3.6	304.4
2710	Nubark Gold	1 lb / cwt	Seed	34.4	5.0	10.5	1.3	3.4	6.3	4.5	374.0
2711	Nubark Mancozeb 6%	1 lb / cwt	Seed	31.4	14.2	19.3	12.1	3.4	9.3	4.9	371.1
2712	Nubark Mancozeb AS	1 lb / cwt	Seed	36.0	13.8	10.9	2.5	3.2	8.1	4.7	353.6
2713	Maxim 4 FS Nubark Gold	0.08 fl oz / cwt 1 lb / cwt	Seed	4.1	1.3	0.0	0.0	3.1	8.8	5.5	312.3
2714	Cabrio Plus	2.9 lb / a	In-Furrow	49.2	29.0	13.9	5.3	3.2	5.9	4.5	369.3
2715	Priaxor	6.74 fl oz / a	In-Furrow	57.6	20.4	16.6	7.5	3.0	5.0	4.0	311.9
2716	BAS 700 04F	3.75 fl oz / a	In-Furrow	17.5	5.0	1.0	0.0	3.1	7.4	4.8	331.8
2717	Headline SC	9 fl oz / a	In-Furrow	36.2	16.7	9.6	1.1	3.0	5.3	4.3	368.2
2718	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.3 oz / 1000 row ft	Seed In-Furrow	22.6	5.8	5.5	0.0	3.5	7.3	5.2	313.8
2719	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.55 oz / 1000 row ft	Seed In-Furrow	32.0	4.2	5.0	0.0	3.5	8.8	4.6	381.9
2720	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.83 oz / 1000 row ft	Seed In-Furrow	18.0	6.0	4.4	0.0	3.5	8.2	4.8	391.6
2721	Maxim 4FS ActinoGrow AG	0.08 fl oz / cwt 0.3 oz / 1000 row ft	Seed In-Furrow	31.8	12.7	5.6	0.0	3.4	6.6	5.0	358.3
2722	Quadris Serenade	0.6 fl oz / 1000 row ft 4.4 fl oz / 1000 row ft	Hilling In-Furrow	73.8	40.3	32.2	15.9	3.7	6.2	4.0	352.7

Treatment		Rate	Application	% stem w Rhizoc	%stem girdled	% stolon w Rhizoc	%stolon girdled	vigor	# Tuber	Tuber > 3 oz	yield cwt/a
2723	Serenade	8.8 fl oz / 1000 row ft	In-Furrow	34.2	19.2	9.2	3.2	3.2	8.8	4.8	370.6
2724	GWN-9935 70-DF	0.79 oz / 1000 row ft	In-Furrow	15.4	10.4	3.8	2.8	3.3	9.9	5.3	383.0
2725	Vertisan EC	1.6 fl oz / 1000 row ft	In-Furrow	19.3	1.3	0.6	0.0	3.5	8.2	4.8	347.0
2726	Picoxy SC	0.5 fl oz / 1000 row ft	In-Furrow	30.4	18.3	12.1	3.8	3.4	7.5	4.6	339.9
2727	Picoxy SC	1.3 fl oz / 1000 row ft	In-Furrow	40.8	12.5	14.4	1.3	3.3	6.5	4.6	355.8
2728	Q8Y78 SC	1.6 fl oz / 1000 row ft	In-Furrow	33.2	12.2	7.8	3.5	3.4	7.8	4.5	353.9
2729	Maxim 4FS	0.08 fl oz / cwt	Seed	9.9	4.3	2.1	0.0	3.6	9.0	6.0	385.3
		Vertisan EC	1.6 fl oz / 1000 row ft								
2730	Maxim 4FS	0.08 fl oz / cwt	Seed	7.2	1.0	1.8	1.0	3.2	9.2	5.6	410.1
2731	Maxim 4FS	0.08 fl oz / cwt	Seed	4.8	0.0	1.0	0.0	3.0	10.1	5.6	346.6
		Quadris	0.6 fl oz / 1000 ft								
2732	Quadris	0.6 fl oz / 1000 ft	In-Furrow	17.6	5.3	5.9	3.8	3.1	8.5	5.1	377.3
2733	Moncut 70 DF	0.79 oz / 1000 ft	In-Furrow	42.8	8.1	5.4	0.8	3.4	8.3	5.3	390.8
2734	6% Mancozeb	1 lb / cwt	Seed	23.6	2.9	2.9	0.0	3.0	8.3	5.3	338.8
2735	Phostrol	1:10	Seed	38.8	11.7	5.1	0.8	3.6	7.1	5.4	352.7
LSD _{p=0.05}				19.3	13.1	9.9	6.3	NS	2.0	1.1	53.1