

Standard Seed Treatment (2700 Series)

Location: Tappen, ND
Plot design: 2 rows X 30 ft. X 4 reps; RCBD

Planting date: May 22, 2008
Row width: 36 inches
Plant spacing: 14 inches

Cultivar: Ranger Russet
50% Emergence: June 18

Fertilizer: Broadcast: 209#N, 52#P, 200#K, 1#B; May 7
Starter: 25#N, 40#P, 28#S, 1#Zn; May 22

Herbicide: Prowl (2.0 pt/a) + Matrix (1.0 oz/a); June 10

Insecticide: Belay in-furrow (12.0 oz/a); May 22

Fungicide application dates:

July 10	Bravo Zn (2.0 pt/a)
July 15	Manzate (2.0 lb/a)
July 24	Bravo Zn (2.0 pt/a)
July 30	Manzate (2.0 lb/a)
August 5	Bravo Zn (2.0 pt/a)
August 13	Manzate (2.0 lb/a) + Headline (9 oz/a)
August 19	Bravo Zn (2.0 pt/a)

Vinekill: September 25

Harvest: October 1

Grade: Commercial grade by Ag World Support Systems; October 6

Post harvest: November 30; 60 days after harvest

Standard Seed Treatment - Tappen Series 2700
Rhizocontia Rating 47 Days After Planting

Treatment	Rate	Application	Emergence (%)	Vigor (1-4)	Number of stems	Number of stolons	Decay (%)	% Stems w/ Rhizoc	% Stems girdled	% Stolons w/ Rhizoc	% Stolons girdled
2701 Non-treated			86.0	2.4	2.6	8.3	9.5	0.0	0.0	10.4	2.0
2702 Maxim 4FS	0.08 fl oz / cwt	Seed	80.0	2.2	2.5	10.9	9.8	1.3	0.0	5.0	0.6
2703 Maxim Mz	0.5 lb / cwt	Seed	72.5	2.8	2.6	9.9	10.0	4.9	0.0	14.9	2.4
2704 Tops Mz	0.75 lb / cwt	Seed	78.0	2.5	2.4	10.1	5.7	17.5	4.4	17.6	6.0
2705 Moncoat Mz	0.75 lb / cwt	Seed	79.0	2.7	2.5	11.0	21.0	0.0	0.0	7.9	0.9
2706 6% Moncozeb (WE1044-1)	1.0 lb / cwt	Seed	82.5	2.3	2.1	10.3	8.5	5.0	0.0	25.6	6.6
2707 Quadris	0.4 fl oz / 1000 row ft	In-furrow	83.0	2.5	2.6	10.2	26.5	21.7	5.0	20.7	5.0
2708 Moncut 70DF	17.0 oz / a	In-furrow	83.0	2.3	2.6	10.5	4.0	2.9	1.3	8.6	1.0
2709 Confidential			68.5	2.6	2.3	9.2	30.8	22.9	0.0	18.3	2.9
2710 Confidential			68.5	1.5	2.1	8.7	8.3	5.4	0.0	11.0	2.4
2711 Confidential			66.0	2.1	1.7	9.0	36.6	7.0	0.0	9.1	0.5
2712 Confidential			69.0	2.3	2.3	8.6	18.5	10.0	0.0	19.6	5.7
2713 Confidential			65.0	2.4	2.0	8.0	16.8	8.3	1.7	17.7	3.3
2714 Confidential			68.0	2.6	2.5	10.0	31.0	11.7	0.0	10.6	2.5
2715 Confidential			66.5	2.3	1.9	10.6	28.8	5.0	5.0	11.0	0.0
2716 Confidential			76.0	2.5	2.3	9.0	29.5	8.8	0.0	15.7	2.8
2717 Confidential			81.0	3.0	2.3	10.0	6.0	6.7	0.0	14.4	0.8
2718 Confidential			81.5	3.1	2.2	9.8	11.0	10.8	0.0	14.1	3.5
2719 Confidential			81.0	2.3	2.1	9.8	7.3	14.2	1.7	11.0	3.0
2720 Confidential			82.0	2.4	2.4	10.0	22.5	13.1	0.0	21.1	3.9
2721 Evito	3.8 fl.oz / a	In-furrow	79.5	2.3	2.3	10.4	8.8	8.3	0.0	15.8	3.5
2722 Polyoxin D	8.0 oz / a	In-furrow	84.5	2.4	2.2	10.0	5.5	26.7	3.3	22.0	7.1
2723 Polyoxin D	12.0 oz / a	In-furrow	69.5	2.5	2.6	9.0	21.3	18.8	6.7	22.5	8.0
2724 Evito + Polyoxin D	3.8 fl.oz / a + 8.0 oz / a	In-furrow	80.5	2.7	2.4	11.0	2.8	5.4	0.0	19.7	2.6
2725 Confidential			88.0	2.5	2.5	11.3	4.8	12.3	3.0	20.1	3.1
2726 Dakota Peat	1.0 lb / cwt	Seed	75.0	2.4	2.1	9.9	17.0	17.9	7.5	18.1	1.6
2727 Douglas Fir Bark	1.0 lb / cwt	Seed	75.0	2.6	2.1	9.0	11.3	5.0	0.0	9.9	3.4
2728 WE-1042-1	1.0 lb / cwt	Seed	70.5	2.5	2.2	9.3	7.9	18.3	7.1	24.9	10.9
2729 WE-1043-1	1.0 lb / cwt	Seed	80.5	2.5	2.8	10.6	21.0	6.3	0.0	11.5	1.9
2730 Bleach (ph adjusted)	200:1:0.5 H ₂ O:bleach:vinegar	Seed Dip	80.5	2.2	2.5	10.4	9.5	8.3	0.0	11.7	5.7
LSD _{P=0.05}			9.5	0.5	NS	NS	17.2	14.9	NS	10.2	5.3

Standard Seed Treatment - Tappen Series 2700
Rhizocontia Rating 72 Days After Planting

Treatment	Rate	Application	Tubers > 3oz	% Stems w/ Rhizoc	% Stems girdled	% Stolons w/ Rhizoc	% Stolons girdled	Vigor (1-4)
2701 Non-treated			3.2	16.7	4.4	29.3	10.5	2.5
2702 Maxim 4FS	0.08 fl oz / cwt	Seed	6.3	6.7	0.0	3.9	2.0	3.7
2703 Maxim Mz	0.5 lb / cwt	Seed	3.8	17.8	0.0	13.2	3.0	2.7
2704 Tops Mz	0.75 lb / cwt	Seed	4.7	3.3	0.0	2.1	0.0	3.5
2705 Moncoat Mz	0.75 lb / cwt	Seed	2.2	20.6	3.3	30.7	9.6	2.5
2706 6% Moncozeb (WE1044-1)	1.0 lb / cwt	Seed	4.3	6.7	0.0	7.2	0.0	2.9
2707 Quadris	0.4 fl oz / 1000 row ft	In-furrow	3.7	18.3	2.2	15.4	4.7	2.5
2708 Moncut 70DF	17.0 oz / a	In-furrow	5.1	3.3	0.0	4.8	1.2	3.4
2709 Confidential			4.5	13.3	0.0	7.8	1.7	3.1
2710 Confidential			2.7	3.3	0.0	8.3	1.3	2.9
2711 Confidential			4.3	5.6	0.0	11.0	3.3	3.3
2712 Confidential			3.0	24.4	0.0	4.4	0.0	2.9
2713 Confidential			3.4	3.9	0.0	2.9	0.0	3.1
2714 Confidential			4.4	0.0	0.0	2.8	1.1	2.8
2715 Confidential			4.6	0.0	0.0	5.1	1.0	3.1
2716 Confidential			2.7	17.8	0.0	19.5	6.0	2.4
2717 Confidential			3.1	11.7	0.0	9.9	1.7	2.3
2718 Confidential			3.3	12.4	4.4	19.2	5.6	2.3
2719 Confidential			4.5	23.7	1.3	28.4	7.0	2.9
2720 Confidential			4.3	12.2	0.0	6.5	0.0	2.9
2721 Evito	3.8 fl.oz / a	In-furrow	5.2	4.4	0.0	3.2	0.0	3.4
2722 Polyoxin D	8.0 oz / a	In-furrow	3.8	13.3	0.0	18.8	6.1	3.2
2723 Polyoxin D	12.0 oz / a	In-furrow	4.3	10.0	3.3	1.9	0.0	2.9
2724 Evito + Polyoxin D	3.8 fl.oz / a + 8.0 oz / a	In-furrow	3.3	17.2	0.0	9.2	1.7	2.7
2725 Confidential			3.4	6.7	0.0	9.6	1.4	2.9
2726 Dakota Peat	1.0 lb / cwt	Seed	4.2	40.0	6.7	25.8	8.8	2.4
2727 Douglas Fir Bark	1.0 lb / cwt	Seed	4.9	11.3	5.6	12.6	5.0	3.3
2728 WE-1042-1	1.0 lb / cwt	Seed	4.0	0.0	0.0	2.8	0.8	3.1
2729 WE-1043-1	1.0 lb / cwt	Seed	4.5	14.4	2.2	2.5	0.0	3.2
2730 Bleach (ph adjusted)	200:1:0.5 H ₂ O:bleach:vinegar	Seed Dip	5.7	10.6	0.0	10.4	0.0	3.2
LSD _{P=0.05}			1.6	16.7	NS	10.2	4.4	0.7

Standard Seed Treatment - Tappen Series 2700 Yield and USDA Grade

Treatment	Rate	Application	Total Yield (cwt/a)	4 - 5.99 oz	6 - 9.99 oz	>10 oz	Unusable	Undersize
2701 Non-treated			399.5	47.9	74.8	58.4	1.5	25.8
2702 Maxim 4FS	0.08 fl oz / cwt	Seed	407.8	36.6	87.3	67.6	3.7	17.3
2703 Maxim Mz	0.5 lb / cwt	Seed	376.6	41.6	70.9	52.8	3.6	26.0
2704 Tops Mz	0.75 lb / cwt	Seed	436.6	39.9	83.8	65.9	3.8	24.3
2705 Moncoat Mz	0.75 lb / cwt	Seed	363.9	25.7	67.7	39.2	4.5	29.3
2706 6% Moncozeb (WE1044-1)	1.0 lb / cwt	Seed	427.0	50.2	83.3	64.8	3.1	24.2
2707 Quadris	0.4 fl oz / 1000 row ft	In-furrow	428.6	38.1	89.2	69.3	7.0	21.5
2708 Moncut 70DF	17.0 oz / a	In-furrow	424.3	34.0	74.5	71.5	4.3	20.1
2709 Confidential			390.8	34.5	69.5	74.9	4.3	21.8
2710 Confidential			378.7	35.5	68.2	69.8	6.5	22.4
2711 Confidential			369.7	30.7	54.9	70.7	2.7	21.3
2712 Confidential			396.0	33.4	71.4	51.4	2.0	22.9
2713 Confidential			350.4	35.9	52.4	65.4	2.1	17.0
2714 Confidential			391.3	32.3	96.5	55.4	0.8	19.5
2715 Confidential			395.2	39.2	76.4	54.0	1.0	26.8
2716 Confidential			391.4	42.3	70.2	57.8	0.6	20.9
2717 Confidential			394.1	46.0	63.3	39.9	1.0	30.7
2718 Confidential			418.2	45.5	79.4	58.6	1.1	25.7
2719 Confidential			403.4	37.5	66.2	65.4	2.8	23.6
2720 Confidential			401.4	55.0	72.2	40.4	1.2	32.4
2721 Evito	3.8 fl.oz / a	In-furrow	358.2	39.3	78.9	48.5	2.2	26.2
2722 Polyoxin D	8.0 oz / a	In-furrow	376.0	37.9	73.5	63.1	1.7	20.5
2723 Polyoxin D	12.0 oz / a	In-furrow	392.2	38.5	103.9	49.0	1.5	16.0
2724 Evito + Polyoxin D	3.8 fl.oz / a + 8.0 oz / a	In-furrow	357.0	35.8	67.6	57.9	5.1	18.7
2725 Confidential			377.4	34.2	79.2	60.6	3.0	21.6
2726 Dakota Peat	1.0 lb / cwt	Seed	361.4	29.7	70.8	51.3	1.5	22.0
2727 Douglas Fir Bark	1.0 lb / cwt	Seed	371.0	28.3	67.5	67.9	4.3	21.3
2728 WE-1042-1	1.0 lb / cwt	Seed	362.6	33.3	65.6	69.7	1.8	23.0
2729 WE-1043-1	1.0 lb / cwt	Seed	391.7	37.9	78.9	53.1	3.1	25.0
2730 Bleach (ph adjusted)	200:1:0.5 H ₂ O:bleach:vinegar	Seed Dip	408.1	34.1	84.4	70.7	5.4	14.0
LSD _{P=0.05}			46.9					