

Standard and In-Furrow Rhizoctonia (700 Series)

Location: Wadikamper - Park Rapids, MN
Plot design: 2 rows X 35 feet X 4 replications; RCBD

Planting date: April 23, 2003
Row width: 36 inches
Seed spacing: 14 inches
Soil Temperature: 49F
Cultivar: Russet Burbank
Herbicide: Linex (2.5 pt/a) pre-emergence; May 16

Fertilizer: }
Insecticide: } Performed by cooperator as applicable for a commercial crop.
Fungicide : }

Data collection dates: Stand count: 6-11-03; 49 Days After Planting
Rhizoctonia evaluation: 6-11-03; 49 Days After Planting
Rhizoctonia evaluation: 7-30-03; 98 Days After Planting

Vinekill: Rotobeat and Reglone (2 pt/a); August 29

Harvest: September 3, 4

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Rhizoctonia Evaluation - 49 Days After Planting

Treatment	Rate	stand	stems /plant	stems w/ rhizoc	% stems w/ rhizoc	stems girdled	% stems girdled	stolons /plant	stolons w/ rhizoc	% stolons w/ rhizoc	stolons girdled	% stolons girdled	vigor (1-4)	seed decay (%)
701 Untreated	0	29.1	1.9	0.5	27.5	0.0	0.0	10.6	0.9	9.5	0.6	7.0	3.8	0.0
702 Moncut 70 DF	0.79 oz product / 1000 row ft	29.6	2.2	0.8	42.5	0.3	15.0	10.9	2.2	21.2	1.0	9.0	3.8	0.0
703 Moncut 70 DF	1.18 oz product / 1000 row ft	28.6	2.1	1.2	51.7	0.05	1.7	10.8	2.0	16.4	1.2	9.6	3.7	0.0
704 Moncut 5SC	0.88 oz product / 1000 row ft	29.1	2.0	0.7	40.4	0.0	0.0	10.2	1.1	12.1	0.5	6.3	3.9	0.0
705 Quadris	6.2 oz product / a	29.1	2.6	0.6	24.3	0.05	1.3	12.6	0.6	4.9	0.4	3.4	3.9	0.0
706 Headline	6.1 oz product / a	29.6	2.7	1.1	38.8	0.1	4.2	13.7	1.7	11.1	0.7	5.1	3.9	0.0
LSD _{P=0.05}		NS	0.5	0.4	NS	0.2	7.3	2.6	0.9	7.9	NS	NS	NS	NS

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Rhizoctonia Evaluation - 98 Days After Planting

Treatment	Rate	stems /plant	stems w/ rhizoc	% stems w/ rhizoc	stems girdled	% stems girdled	stolons /plant	stolons w/ rhizoc	% stolons w/ rhizoc	stolons girdled	% stolons girdled	vigor (1-4)	tuber #	# tubers > 3 oz.
701 Untreated	0	2.5	1.2	48.7	0.2	6.7	13.6	3.8	29.0	2.0	15.5	3.9	11.3	6.5
702 Moncut 70 DF	0.79 oz product / 1000 row ft	2.0	0.6	32.5	0.1	5.0	12.2	2.3	20.1	0.8	7.6	4.0	10.1	6.6
703 Moncut 70 DF	1.18 oz product / 1000 row ft	2.5	0.9	41.2	0.3	15.0	14.0	4.6	36.1	2.1	16.9	3.9	11.3	7.1
704 Moncut 5SC	0.88 oz product / 1000 row ft	2.0	0.8	34.2	0.3	7.5	11.4	2.5	21.2	1.0	7.8	3.9	9.5	6.0
705 Quadris	6.2 oz product / a	2.3	1.0	38.3	0.5	15.0	12.7	3.2	26.1	1.4	11.6	3.8	11.0	5.7
706 Headline	6.1 oz product / a	2.0	0.5	19.2	0.2	6.7	12.6	2.2	17.1	0.6	4.2	3.9	10.4	7.8
LSD _{P=0.05}		NS	NS	NS	NS	NS	NS	1.4	11.6	NS	NS	NS	NS	NS

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Yield and USDA Grade

Treatment	Rate	Total Yield (cwt/a)	Market Yield (cwt/a)	10 oz. & over (%)			6 - 9 oz. (%)			>6oz (%)	2 in/4 oz (%)		Total Smalls (%)	Unusables (%)				Specific Gravity
				US No. 1	US No. 2	Total	US No. 1	US No. 2	Total	Total	US No. 1	US No. 2		Total	Undersize	Serious Hollow	Other	
701 Untreated	0	549.0	492.1	30.9	4.3	35.3	30.5	2.8	33.3	68.5	18.8	2.3	21.1	10.4	7.6	0.1	2.7	1.080
702 Moncut 70 DF	0.79 oz product/1000 row ft	576.3	520.8	29.6	3.0	32.6	32.2	4.2	36.3	69.0	18.5	2.9	21.4	9.6	6.6	0.3	2.7	1.083
703 Moncut 70 DF	1.18 oz product/1000 row ft	545.5	498.4	31.9	4.9	36.8	27.4	4.0	31.3	68.1	21.1	2.1	23.2	8.6	6.6	0.0	2.0	1.081
704 Moncut 5SC	0.88 oz product/1000 row ft	580.4	537.0	30.5	2.4	32.9	34.0	4.2	38.2	71.1	18.5	3.0	21.5	7.5	5.6	0.0	1.9	1.083
705 Quadris	6.2 oz product/a	561.5	512.4	27.4	4.3	31.7	33.1	4.3	37.4	69.1	19.7	2.5	22.2	8.7	6.2	0.2	2.3	1.082
706 Headline	6.1 oz product/a	579.4	526.9	29.1	4.3	33.4	31.6	4.7	36.3	69.8	19.2	2.0	21.2	9.1	7.2	0.0	1.9	1.080
LSD _{P=0.05}		NS																

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Market Analysis

Treatment	Rate	Market Yield (cwt/a)	Processor #1		Difference from Untreated (\$/a)	Processor #2		Difference from Untreated (\$/a)	Processor #3		Difference from Untreated (\$/a)
			\$/cwt	Gross \$/a		\$/cwt	Gross \$/a		\$/cwt	Gross \$/a	
701 Untreated	0	492.12	5.68	2792.80		5.27	2593.49		5.47	2692.90	
702 Moncut 70 DF	0.79 oz product/1000 row ft	520.81	5.72	2976.45	183.65	5.27	2744.69	151.20	5.49	2860.31	167.41
703 Moncut 70 DF	1.18 oz product/1000 row ft	498.37	5.71	2843.19	50.39	5.33	2656.31	62.81	5.52	2749.50	56.60
704 Moncut 5SC	0.88 oz product/1000 row ft	537.02	5.75	3085.19	292.38	5.21	2797.88	204.39	5.48	2941.26	248.36
705 Quadris	6.2 oz product/a	512.42	5.69	2913.14	120.33	5.27	2700.48	106.99	5.48	2806.55	113.65
706 Headline	6.1 oz product/a	526.94	5.66	2979.85	187.05	5.25	2766.44	172.95	5.45	2872.88	179.98