

PROJECT TITLE: Winter Wheat Seed Fungicide Treat Evaluation Trial

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OBJECTIVES:

To evaluate agronomic performance of fungicides used as seed treats to protect winter wheat seedlings.

RESULTS:

Winter Wheat Seed Treat:

The late September planting date reduced the chance of significant disease infection, cephalosporium stripe or dry land root rot, occurring on fall seeded cereals. Receiving the treated seed late in the planting season has hampered the assessment of the seed treatments effectiveness. The significant winter soil blasting further eroded the quality of this trial. DB green treatment had the highest yields, but there was not significant difference between the highest and lowest yields (see Table 76).

Spring Wheat Seed Treat:

The early May seeding date reduced the chance of significant cold seed decay occurring. Receiving the treated seed late in the planting season has hampered the assessment of the seed treatments effectiveness. The significant mid spring soil blasting further eroded the quality of this trial. Raxil MD treatment had the highest grain yields, but there was not significant difference between the highest and lowest yields (see Table 77).

SUMMARY:

The trial failed to meet its objective.

FUTURE:

The relative performance of the various seed treatments is of interest to cereal grain producers. Seed treat has become a fixed cost for many producers and they want maximum return on this up front cost.

Table 76 Agronomic response of Neeley winter wheat to fungicide seed treatments.
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Code	Fungicide	Plant Density no./3ft	Stand %	Plant Height inches	Heading Date days	Grain Yield bu/a	Test Weight lbs/bu	Grain Protein %
CODE		no./3ft	%	inches	days	bu/a	lbs/bu	%
DIVXLAD1	Dividend XL + Adege	31.5	83.8	32.3	169.8	43.0	59.8	16.8
DIVXLAD2	Dividend XL + Adege	37.3	76.3	31.8	170.5	43.3	59.8	16.6
CHOXPB	Choxtex PB	30.0	71.3	31.5	171.0	41.7	60.2	16.5
CHOXMAX	Choxtex Max	34.5	83.8	32.5	169.0	48.4	59.8	15.8
DBGRN	DB Green	31.0	89.5	32.0	169.3	48.3	60.3	15.9
DBGRNRR	DB Green RR	33.3	93.8	31.8	169.0	47.8	59.4	15.9
RAXMD	Raxil MD	28.5	61.3	31.8	171.0	43.3	60.6	15.9
RAXMDX	Raxil MD Extra	32.5	72.5	32.5	170.5	42.2	60.0	15.9
CONTROL	Check-Control	35.8	83.8	31.5	169.8	47.5	60.6	16.4
Average		32.7	79.5	31.9	170.0	45.1	60.0	16.2
CV (s/mean)*100		31.5	22.0	3.4	0.9	13.6	1.1	
LSD (0.05)		ns	ns	ns	ns	ns	ns	

Seeded: September 27, 2000 at a depth of 3/4 inch Harvest: August August 20, 2001
Fertilizer: 50 lbs of 20-20-0 placed with the seed and 67 lbs of N were broadcast in fall of 2000
Previous Crop: Fallow Herbicide: Bronate 1.5pts/a on May 8, 2001
Growing Season Precipitation: 7.29 inches

Table 77. Agronomic response of Hi-Line spring wheat to fungicide seed treatments.
Central Agricultural Research Center, Moccasin, MT

ID	Fungicide	Rate	Heading Date	Plant Height	Grain Yield	Test Weight	Grain Protein
			days	inches	bu/a	lbs/bu	%
CTRL	Control		184	23	33.2	60.2	15.9
RMD	Raxil MD	5 oz/CWT	184	24	36.7	60.5	15.7
RMDX	Raxil MD Extra	5 oz/CWT	184	22	36.5	60.8	16.5
RMDA2	Raxil MD + L0258-A2	5 oz/CWT + 25 PPM	184	21	27.0	59.8	16.0
GAUCHO	Raxil + Gaucho 480	5 oz/CWT + 0.16 oz/CW	184	23	34.4	60.3	14.8
RTU	RTU Vitavax-Thiram	6 oz/CWT	184	22	34.4	60.4	15.3
DVX1250	Dividend Extreme + 12050	2 oz/CWT + .375 oz/CW	184	21	27.7	59.9	16.0
DVXADA	Dividend Extreme + Adage	2 oz/CWT	183	22	30.9	60.7	16.7
DVX	Dividend Extreme	2 oz/CWT	184	23	35.5	61.1	16.4
DVXL	Dividend XL	1 oz/CWT	183	23	35.5	60.8	16.9
Average			184	22	33.2	60.4	16.0
CV (s/mean)*100			0	6	16.0	1.7	
LSD (0.05)			ns	ns	ns	ns	

Seeded: May 2, 2001

Harvested: Aug 20, 2001

Fertilizer: 50 lbs of 20-20-0 placed with the seed and 60 lbs N applied in fall of 2000

Previous Crop: Fallow

Soil Temp:

Precipitation: 7.29 inches (Growing Season - Apr-Jul)

10.60 inches (Crop Year - Sep-Aug)

Herbicide: Bronate 1.5 pts/a on May 11, 2001