

EVALUATION OF FUNGICIDES APPLIED AT PLANTING FOR CONTROL OF POWDERY SCAB ON POTATO, 2003

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Location: Off-station

Cultivar: Cherry Red, whole seed

Objective: To evaluate the efficacy of various fungicide treatments in preventing powdery scab on potato.

Treatments:

1. Control, no treatment
2. Manex @ 5 qt./A & Omega @ 1.5 pt./A, In-furrow
3. Manex @ 10 qt./A & Omega @ 3.0 pt./A, In-furrow
4. Topsin @ 1.5 lb./A, In-furrow

Application: In-furrow treatments were applied using an R & D CO₂ charged backpack sprayer at 35 PSI, with one XR 8002VS nozzle, at 10 gallons/acre.

Planted: May 20, 2003

Plot Design: Randomized

Plot Size: 1 - 10 foot row per treatment per replication

Plant Spacing: 12 inches

Row Spacing: 34 inches

Replications: Two

Irrigation: Center pivot sprinkler, rate based on ET

Fertilizer: 170N,205P,5K,41S

Herbicide: Matrix, 0.4lb./A + Prowl, 0.75lb./A + Sencor, 0.25lb./A

Insecticide: Asana, 5.8oz./A + Leverage, 7.4oz./A + Vydate, 3qt./A

Fungicide: Bravo WS, 1pt./A + Kocide DF 2000, 4lb./A + Kocide 4.5LF, 2.6pt./A + Quadris, 8oz./A

Vine Killer: Reglone on August 21, 2003

Harvested: September 3, 2003

DATA

Disease: Mean percent of the number of tubers showing powdery scab lesions at harvest and the number of lesions found per tuber at harvest.

Table 1. Effect of fungicides applied at planting on the incidence of powdery scab on tubers in the cultivar Cherry Red, San Luis Valley, Colorado, 2003

Cultivar	% Infected ^a	% with 1-5 lesions ^b	% with 6-10 lesions ^c	% with 11-20 lesions ^d	% with 21-30 lesions ^e	% with >30 lesions ^f
1. Control, no treatment	33.9	72.5	23.5	3.1	0.0	1.0
2. Manex @ 5 qt./A & Omega @ 1.5 pt./A, In-furrow	31.5	63.3	16.9	16.0	2.6	1.3
3. Manex @ 10 qt./A & Omega @ 3.0 pt./A, In-furrow	21.3	69.0	31.0	0.0	0.0	0.0
4. Topsin @ 1.5 lb./A, In-furrow	28.4	80.8	9.2	7.2	0.0	2.8
LSD(P=0.05)	NS	NS	NS	NS	NS	NS

^a% Infected = Mean percent of affected tubers out of total number of tubers/treatment/replication.

^bPercent of tubers out of total number infected with 1-5 lesions/treatment/replication.

^cPercent of tubers out of total number infected with 6-10 lesions/treatment/replication.

^dPercent of tubers out of total number infected with 11-20 lesions/treatment/replication.

^ePercent of tubers out of total number infected with 21-30 lesions/treatment/replication.

^fPercent of tubers out of total number infected with >30 lesions/treatment/replication.

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