

**2001 PROTOCOL FOR EVALUATION OF FUNGICIDES APPLIED AT PLANTING FOR CONTROL OF
RHIZOCTONIA ON POTATO**

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Location: San Luis Valley Research Center, Center, CO

Cultivar: Russet Norkotah, cut seed, 2-4 oz

Treatments:

1. Control, no treatment
2. A12534 on seed + Quadris, 1.5 oz. a.i./A IF
3. A12777 on seed + Quadris, 1.5 oz. a.i./A IF
4. Moncut 50W, 1.0 lb./A IF
5. Moncut 50W, 1.5 lb./A IF
6. Moncut 50W, 1.0 lb./A + 5pt Blocker IF
7. Blocker 10G, 25 lb./A IF + Firkark Mancozeb
8. Blocker 4F, 7.5 pt./A IF + Firkark Mancozeb
9. Blocker 4F, 10.0 pt./A IF + Firkark Mancozeb
10. Maxim MZ on seed
11. Tops MZ on seed

Application: Treatments were applied using an R & D CO₂ charged backpack sprayer at 35 PSI, with one XR 8002VS nozzle, at 10 gallons/acre as a directed in-furrow application. Treatments 10 and 11 were applied directly to fresh cut seed and planted within twenty-four hours.

Planted: May 16, 2001

Plot Design: Randomized complete block

Plot Size: 1 - 25 foot row per treatment per replication

Plant Spacing: 12 inches

Row Spacing: 34 inches

Replications: Four

Irrigation: Solid set sprinkler, rate based on ET

Fertilizer: 80N-60P-40K, 40N through sprinkler

Herbicide: Dual Magnum, 1.33 pt/A + Matrix, 1.5 oz/A

Insecticide: Leverage 2.7, 3.75 floz/A

Fungicide: Dithane DF, 2.0 lb/A + Bravo WS, 1.5 pt/A + Quadris, 15.4 floz/A

Vine Killer: Sulfuric acid on August 31, 2001

Harvested: September 18, 2001

DATA

Stand: 1-25 foot row/treatment/replication, counts taken 40 days after planting.

Seed piece decay: Soft-rot and dry-rot combined rated 1-100, where 0 = no decay and 100 = complete decay; 4 seed pieces/treatment/replication.

Rhizoctonia stem canker: Percent stems infected; 4 plants/treatment/replication.

Blackleg: Percent stems infected; 4 plants/treatment/replication.

Plant vigor: Rated 1-5, where 1 = poor and 5 = good; 4 plants/treatment/replication.

Stems: Average number of stems per plant; 4 plants/treatment/replication.

Tuber set: Average number of tubers per plant at full set; 3 plants/treatment/replication.

Yield: 1-18 foot row per treatment per replication, total yield expressed in cwt/A.

Grade: By hand, percent tubers by weight in lbs and tuber # < 4 oz, 4-10 oz, > 10 oz, US #2's, and culls.

Black scurf severity index: Mean percent of the affected tuber surface area, 10 8-10 oz tubers per treatment per replication. multiplied by the severity of the sclerotia, where 1= small sclerotia and 3 = large sclerotia.

