

## EVALUATION OF FUNGICIDES APPLIED THROUGH CHEMIGATION FOR CONTROL OF PINK ROT ON POTATO, 2003

- Researchers:** Richard T. Zink and Andrew Houser, Colorado State University, SLVRC
- Location:** San Luis Valley Research Center, Center, CO
- Cultivar:** Russet Norkotah selection 8, cut seed, 2-4 oz.
- Objective:** To evaluate the efficacy of various fungicides in preventing of pink rot in potato.
- Application:** Treatments were chemigated on through the solid set irrigation system. Treatments that did not require a chemigation application were covered by a plastic tarp.
- Chemigation:** For Ridomil Gold Applications: Chemical was mixed with 10 gal. of water and was irrigated with 0.5 inches of water.  
For Omega Applications: Chemical was mixed with 17 gal. of water and was irrigated with 0.7 inches of water.
- Treatments:**
1. Control, no treatment
  2. Ridomil Gold @ 3.2 oz./A (2 applications – July 9 & July 18)
  3. Omega @ 8 oz./A (2 applications – July 9 & July 18)
  4. Omega @ 8 oz./A (4 applications – July 9, July 18, August 1, and August 14)
- Planted:** May 7, 2003
- Plot Design:** Randomized complete block
- Plot Size:** 4 - 16 foot rows per treatment per replication, data taken on two center rows only.
- Plant Spacing:** 12 inches
- Row Spacing:** 34 inches
- Replications:** Four
- Irrigation:** Solid set sprinkler, rate based on ET
- Fertilizer:** 80N-60P-40K-25S-2.5Zn, preplant, 10N through sprinkler after tuber set
- Herbicide:** Matrix, 1.5 oz./A + Eptam, 4.5 pt./A
- Insecticide:** None
- Fungicide:** Bravo WS, 1.5 pt./A
- Vine Killer:** Beat vines on September 2, 2003
- Harvested:** September 19, 2003

### DATA

- Disease:** Percent tubers with pink rot at harvest and at grading.  
The plot was flooded to induce pink rot on August 20<sup>th</sup> & 29<sup>th</sup>.
- Yield:** 2-10 foot rows per treatment per replication, total yield expressed as cwt/A.
- Grade:** By hand, percent tubers by weight in pounds < 4 oz., 4-10 oz., > 10 oz., US #2's, and culls.

**Table 1.** Effects of products applied through chemigation for control of pink rot on tuber yield and quality in the cultivar Russet Norkotah Selection 8, San Luis Valley, Colorado, 2003

Treatment/Rate	Percent <sup>a</sup>			US #2s	Culls	Cwt/A <sup>b</sup>	Incidence of tuber rot <sup>c</sup>
	< 4 oz.	4-10 oz.	> 10 oz.				
1. Control, no treatment	10.2	40.3	45.7	0.3	3.5	370.6	0.0
2. Ridomil Gold @ 3.2 oz./A (2 applications)	15.8	51.9	29.9	1.2	1.3	353.8	0.0
3. Omega @ 8 oz./A (2 applications)	12.5	50.4	36.0	0.4	0.8	357.3	0.7
4. Omega @ 8 oz./A (4 applications)	9.9	50.1	37.9	1.0	1.0	432.7	0.0
LSD(P=0.05)	NS	NS	NS	NS	NS	NS	NS

<sup>a</sup> Based on tuber weight in pounds, mean of four replications.

<sup>b</sup> Total yield expressed as hundred weight per acre, 2-10 foot rows per treatment per replication, mean of four replications.

<sup>c</sup> Mean percent by weight of tubers showing water rot at harvest and at grading, 4 replications.

Means followed by the same letters are not significantly different at P=0.05.

### Soil Moisture Data for Omega Chemigation Trial 2003

