

Phostrol®

POST-HARVEST POTATO APPLICATION

TRIALS SHOW PHOSTROL® IS HIGHLY EFFECTIVE

Nufarm has initiated a number of additional research trials to confirm that Phostrol® is a viable option for post-harvest treatment of potatoes for the control or suppression of late blight and pink rot. Results received continue to show that Phostrol is highly effective as a post-harvest application in potatoes.

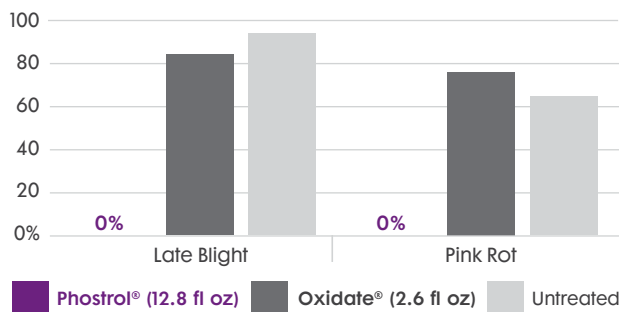
PROTECT FRESHLY HARVESTED TUBERS

Freshly harvested (within 3 hours), unwashed Russet Burbank tubers were inoculated by submersion in late blight and pink rot. A simulated post-harvest treatment was conducted with products at the indicated rate in a spray mixture of 0.5 gal per ton of potatoes. The tubers were then placed into mesh bags and put into one-ton bins surrounded by approximately 1,500 lbs of potatoes harvested from the same plot for 77 days. Conditions: 4 replications; 2 weeks at 55°F and then dropped 0.5°F per day until 48°F; relative humidity 95%. NOTE: Phostrol is not depicted on the chart because every single tuber treated with Phostrol was disease free. Processing quality was not effected by Phostrol applications.

POST-HARVEST POTATO APPLICATION

Percent Disease After 77 Days in Storage

University of Idaho, Kimberly, Idaho, Potato Research Center – Dr. Nora Olsen, Dr. Jeff Miller, Lynn Woodell, Dr. Lyndon Porter, Shane Clayson



Tubers treated with Phostrol were disease free.

EFFECT OF PHOSTROL ON TUBER PROCESSING QUALITY

Parameter	Untreated Control	Phostrol (12.8 oz)
Glucose (% of wt)	0.0486 a	0.0415 a
Sucrose (% of wt)	0.1028 a	0.1093 a
Bud End Fry Color	56.7 a	57.6 a
Stem End Fry Color	45.2 a	45.2 a
Mean Fry Color	50.9 a	51.4 a
Motling Severity	1.30 a	1.28 a

- Values in the same row followed by the same letter are not significantly different
- USDA fry color rating
 - #1 > 44,
 - #2 < 44 but > 35,
 - #3 < 35 but > 26 reflectance
- Motling: 1 = no motling, 2 = mild, 3 = moderate, 4 = severe

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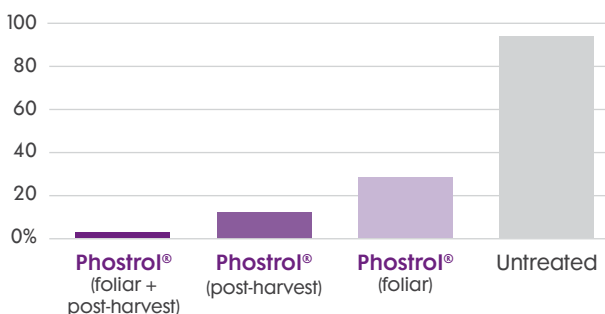
COMBINE FOLIAR AND POST-HARVEST APPLICATIONS FOR ADDED PROTECTION

The post-harvest application of Phostrol® is designed to protect healthy tubers from becoming infected as they come in contact with diseased tubers at harvest. Foliar applications of Phostrol are designed to protect tubers in the field. These results indicate that a combination of foliar and post-harvest applications will provide protection against pink rot.

DATA: Three foliar applications of 10 pints per acre of Phostrol were applied at row closing and 2 weeks and 4 weeks after row closing. A total of 15 tubers from both the untreated check and Phostrol treated field were saved for post-harvest treatment evaluation.

INCIDENCE OF PINK ROT

University of Idaho, Minidoka, Idaho – Dr. Jeff Miller, Dr. Terry Miller, Shane Clayson



EVEN AFTER 90 DAYS, PHOSTROL PROVES EFFECTIVE

Potatoes cv Norvalley were harvested on September 29 and used to fill an experimental bin (4' x 4' x 18') or placed in bags to use for testing. Each trial consisted of approximately 240 lbs of pink rot inoculated potatoes, replicated four times. After treatment, potatoes were placed in individual boxes and stored in the dark at 50°F. Disease observations were made every two/three weeks with disease readings at three months. Only 5 lbs of the 245 lbs of potatoes treated with Phostrol showed incidence of pink rot.

EFFECT OF PHOSTROL ON PINK ROT 90 DAYS AFTER HARVEST

USDA-ARS Potato wd Research Site, East Grand Forks, MN – Gary Secor, Viviana Rivera, Duane Preston, Marty Glynn

	Untreated	Oxidate® (5 oz/ton)	Phostrol® (12.8 oz/ton)
Total Weight of Tubers (lbs)	255	242	245
Healthy Tubers (lbs)	95	227	240
Pink Rot Infected Tubers (lbs)	160	15	5
Total % Pink Rot Infection	62.7%	6.2%	2.0%



nufarm.com/uscrop

For specific application rates, directions, mixing instructions and precautions, read the product label. Please visit www.nufarm.com/uscrop to download a full label.

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