

2008 Potato Fungicide Trial - Hancock - Russet Burbank

Purpose	Evaluation of the efficacy of fungicide preparations to control potato early (and late) blight.																							
Location	Field K , Hancock Research Station, Hancock, WI																							
Cultivar	Russet Burbank - about 3 acres = ~54 cwt																							
Seed Trt	None, all seed to be mechanically cut at Hancock and healed																							
Layout	4 row plots 24 ft long	- spaced on 3 ft centers.	Seedpieces (~2 oz each) spaced at 14" intervals.	Randomized complete block design ; 4 replications																				
Inoculation	None - natural infestation of <i>Alternaria solani</i> , <i>Phytophthora infestans</i>																							
Planting	Date: 4/24/08																							
Treatment application	<ul style="list-style-type: none"> Weekly foliar sprays beginning at 300 P-Days until vinekill unless otherwise specified. Tractor-mounted boom sprayer (10.7' boom, side boom) Tee Jet hollow disc cone nozzles (D3-23) (2007 calibration) <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th colspan="4">Tractor settings</th> </tr> </thead> <tbody> <tr> <td>Nozzle</td> <td>Trt #</td> <td>boom #</td> <td>spacing</td> </tr> <tr> <td>D3-23</td> <td>all</td> <td>"back" 16</td> <td>8"</td> </tr> <tr> <td>psi</td> <td>gpa</td> <td>mph</td> <td></td> </tr> <tr> <td>40 lb</td> <td>35</td> <td>2.72</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> Measured treatments to be added to 2.0 gal of water for all treatments Anticipated application dates: 1 = 28 Jun, 2 = 5 Jul, 3 = 12 Jul, 4 = 19 Jul, 5 = 26 Jul, 6 = 2 Aug, 7 = 9 Aug, 8 = 16 Aug, 9 = 23 Aug 				Tractor settings				Nozzle	Trt #	boom #	spacing	D3-23	all	"back" 16	8"	psi	gpa	mph		40 lb	35	2.72	
Tractor settings																								
Nozzle	Trt #	boom #	spacing																					
D3-23	all	"back" 16	8"																					
psi	gpa	mph																						
40 lb	35	2.72																						
Product needed	<p>Enough to treat 0.06 acre for each application of each chemical + enough for one extra treatment of each chemical in case we have to do an extra spray.</p> <ol style="list-style-type: none"> Our plots are 4 rows (3 ft spacing between rows) x 25' long = 300 ft²/plot Sprayer delivers ~35 gpa at 40 psi (using D3-23 nozzles). We have four replicates but to fill the boom and spray past the end of the plots, etc., mix 2 gallons of material for each application. Two gallons is enough to apply to 0.06 acre at 35 gpa. <p>Example:</p> <p>For chlorothalonil Zn (4.17F) applied weekly for 9 weeks, we would need 2.125 pt/A x (9 + 1 extra) sprays x 0.06 A = 1.3 pt for this one treatment.</p>																							
Other applications	Standard fertilizer, herbicide and insecticide application. Standard irrigation																							
Evaluation	Record date when 1 st early and late blight lesions are seen. Weekly rating for LB (and EB) severity using the standard Horsfall-Barratt rating system (0-11). Record data for 2 center rows for 4 locations/plot.																							
Harvest	48 feet of row (two rows). Grade (US#1, undersize, culls). Conversion factor to CWT/A is 3.025 for 48 feet of row harvested. Size grade <4, 4-6, 6-10, 10-13, 13-16 and > 16 oz. Specific gravities.																							