

POTATO (*Solanum tuberosum*)
Early Blight; *Alternaria solani*
Late Blight; *Phytophthora infestans*
Black Scurf; *Rhizoctonia solani*
Silver Scurf; *Helminthosporium solani*
Pink Rot; *Phytophthora erythroseptica*

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Table 1. Hancock seedpiece treatment trial, 2001 - Effect of treatment on yield and quality after storage.

Treatment, rate/acre formulated product (and active ingredient in []) and schedule summary ¹	Yield (cwt/A)		% of tubers with:							Silver scurf index ³	Rhizoc-tonia index ⁴
	Total	US#1	No symp-toms	Late blight	Soft rot	Pink rot	Silver scurf ONLY	Rhizoc-tonia ONLY	Early blight		
11 Untreated	386.3	175.1	90.0	0.0	2.1	0.0	6.8	1.1	0.0	3.5	0.0
7 PCC 553-1, 0.75 lb/cwt	394.2	146.1	82.1	0.0	1.0	0.0	8.9	8.4	0.0	3.0	8.8
Pr > F ⁴	0.74	0.92	0.05	---	0.42	---	0.55	0.17	---	0.80	0.19
LSD (P = 0.05) ⁴	NS	NS	7.9	---	NS	---	NS	NS	---	NS	NS

- 1 Silver scurf index: Tubers were spread out and the % of the top surface area with silver scurf symptoms was rated on a 5 point scale with 0 = none; 1 = 1-10% of the surface area of the tuber affected; 2 = 10-25% affected; 3 = 25-50% affected; 4 = 50-75% affected; 5 = > 75% affected. The lesion area index was calculated by summing the number in each class times the class number / 5 times the total number of tubers rated. The index represents a percentage of the worst possible case (if all tubers were rated 5, the index would = 100).
- 2 Rhizoctonia index: Tubers were spread out and the severity of Rhizoctonia symptoms on the top surface was rated on a 5 point scale with 0 = none; 1 = 1-5 sclerotia; 2 = 5-10 sclerotia; 3 = 10-20 sclerotia; 4 = > 20 sclerotia. The Rhizoctonia index was calculated by summing the number in each class times the class number / 4 times the total number of tubers rated. The index represents a percentage of the worst possible case (if all tubers were rated 4, the index would = 100).
- 3 Analysis of variance was performed on data, and Fisher's protected least significant difference (LSD) was calculated. NS = not significant at the P = 0.05 level.

Table 2. Hancock seedpiece treatment trial, 2000 – Effect of treatment on internal quality of stored tubers (treatment numbers as listed in table 1).

trt	% with no internal defects	% with any kind of internal defect	Com-bined Defect Rating ¹	Hollow Heart ²				Internal Browning ²				Black Spot/Bruising				
				% with ANY HH	% with SLIGHT HH	% MODER-ATE HH	% SEVERE HH	% with ANY IB	% with SLIGHT IB	% MODER-ATE IB	% SEVERE IB	% Bruise Free	% with 1 spot (< 1cm)	% with 1 spot (> 1cm)	% with 2-3 spots	% with > 3 spots
11	99.2	0.8	0.1	2.2	0.0	2.2	0.0	6.9	6.9	0.0	0.0	98.1	1.9	0.0	0.0	0.0
7	97.2	2.8	0.2	1.2	0.0	1.0	0.3	9.1	8.3	0.5	0.3	88.5	11.0	0.5	0.0	0.0
Pr>F ³	0.08	0.08	0.10	0.57	---	0.43	0.39	0.46	0.65	0.39	0.39	0.09	0.09	0.19	---	---
LSD	2.6*	2.6*	0.16*	NS	---	NS	NS	NS	NS	NS	NS	12.6*	11.9*	NS	---	---

1. The worst possible rating would be 10. Hollow heart and internal browning categories given values of 1(slight), 2 (moderate), 3 (severe); bruising categories given values of 1 (1 spot<1cm) to 4 (> 3 spots). Combined defect rating = sum of Hollow heart, int. browning and bruising values//10 (the worst defect value a tuber could have if hh=3, ib=3 and bruise=4).
2. Hollow heart and internal browning evaluation: slight – longest dimension < 1 cm; moderate 1-2 cm; severe > 2cm.
3. Analysis of variance was performed on data, and Fisher's protected least significant difference (LSD) was calculated. NS = not significant at the P = 0.05 level.