SWEETPOTATO (*Ipomoea batatas* 'Beauregard')

Rhizopus soft rot; *Rhizopus stolonifer*

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Evaluation of fungicide dips for post-harvest control of Rhizopus soft rot of sweetpotato, 2006.

The test was conducted to determine the efficacy of fungicide and biological dips for control of Rhizopus soft rot on cured sweetpotatoes after removal from storage and washing. Roots were from a plot grown at the Sweet Potato Research Station, Chase and harvested on August, 24, 2005. The roots were cured for 5 days and stored at 60-65^{o}F until the test was set up on 20 Feb 06. All the roots were run through a commercial style washer and allowed to run off the end of the grading line and fall approximately three feet into plastic crates two times. To inoculate, roots were briefly dipped (1-2 seconds) in a suspension of 0.5 x 10^{6} sporangiospores per ml of isolate 92Rs-2 of *Rhizopus stolonifer*. The wounded inoculated roots were then dipped in the appropriate chemical treatment in a 2-gal bucket for 30 secs, except one treatment with Scholar which was dipped for 60 secs. The fungicides Botran, Pristine and Scholar were suspended immediately before roots were dipped, the BioSave materials were suspended in water at least one hour before treatment. The roots for each replication of each treatment were placed in a plastic stackable basket and these were in turn stacked in a room at ambient temperature (min = 57, max = 69, and mean = 60^{o}F) and relative humidity (min = 32, max = 70, and mean = 60%). Five replications of 20 roots each of the cultivar Beauregard were used. The number of roots with soft rot was recorded on 2 Mar. The percentages were transformed by the square root of actual % soft rot plus 0.5 for statistical analysis.

Incidence of Rhizopus soft rot was moderate.

Treatment and rate/100 gals	Percent roots with soft rot:
Wounded, noninoculated control	2.0 cd
Wounded, inoculated control	24.0 a
Botran 75WP, 1 lb	2.0 cd
BioSave 10LP, 1.3 lb	6.0 bc
BioSave 10LP, 3.3 lb	1.0 d
BioSave 11LP, 1.3 lb	7.4 b
BioSave 11LP, 3.3 lb	3.0 bcd
Pristine 38WG, 9.1 oz	0.0 d
Pristine 38WG, 18.1 oz	0.0 d
Scholar 50WP, 0.5 lb.	0.0 d
Scholar 50WP, 1 lb.	0.0 d
Scholar 50WP, 1 lb, 60 sec	0.0 d

* Numbers in the same column followed by a common letter are not significantly different at *P*=0.05 by Tukey's multiple range test.