

Management of black rot, also called alligator skin, on butternut squash- first report

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Summary

The causal agent of the alligator skin symptom on butternut squash was confirmed as the fungus *Didymella bryoniae*, which causes diseases on cucurbits known as black rot and gummy stem blight.

Field trials to determine the efficacy of several fungicides suggest that Pristine is an effective fungicide for controlling black rot and alligator skin. However, there were no statistically significant differences among the treatments, as a result of variable levels of disease and yield in the plots. There was no advantage to spraying on a 10 day interval as compared to a 20 day interval. Butternut squash harvested from the field plots was paced in storage and will be evaluated in December to see if more symptoms of alligator skin or black rot develop in storage.

Table 1. Total and marketable yield and percent of fruits infected with *Didymella bryoniae* for 'Avalon' butternut squash treated with fungicides and grown on mineral soil near the Muck Crops Research Station, Holland Marsh, Ontario.

Treatment ^z	Rate/ha	% of fruits infected	Total Yield (t/ha)	Marketable Yield (t/ha)
Control	---	16.4 ns ^y	21.4 ns	16.6 ns
Alexin (10 day)	4.0 L	13.5	29.5	25.7
Bravo (10 day)	2.8 L	13.4	26.5	22.2
Switch (10 day)	975 g	8.9	28.2	20.0
Switch (20 day)	975 g	9.7	26.9	21.7
Quadris (10 day)	1.0 L	7.4	30.7	24.8
Quadris (20 day)	1.0 L	7.2	31.2	27.1
Pristine (10 day)	1.0 kg	6.5	30.7	26.3
Pristine (20 day)	1.0 kg	4.3	32.6	29.5

^z Products were applied approximately every 10 days or every 20 days beginning at first bloom.

^y Not significantly different, P=0.05 Fisher's Protected LSD Test.