

Title Biological control of *Monilinia* and *Botrytis* blights in lowbush blueberries
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Citation Thesis, Master of Science (Plant Science), University of Guelph. 135 pages. 2009.
Keywords blueberry; biological control

Abstract

The purpose of the current study was to identify effective biological controls for *Monilinia vaccinii-corymbosi* and *Botrytis cinerea*, two blight pathogens of lowbush blueberry. Commercial biological controls (Mycostop, Actinovate, Prestop, Endofine, Sporodex, Serenade, BlightBan A506 and BlightBan C91) were tested under controlled environment and/or field conditions. The yeasts *Cryptococcus victoriae* and *Rhodotorula graminis* were also tested for biological control activity against *M. vaccinii-corymbosi* in a controlled environment, and both yeasts reduced disease by $\geq 50\%$ compared to an untreated control. *Bacillus subtilis* QST 713 (Serenade) lowered *M. vaccinii-corymbosi* infection of vegetative buds to almost 0 at 5 kg/ha and 8 kg/ha with two applications in controlled environment and in the field. These concentrations reduced disease when applied one day post-infection, and Serenade and propiconazole reduced the production of conidia on infected plants when applied five and seven days post-infection. Serenade enhanced conidial germination and did not reduce sporulation of *B. cinerea* on flowers.