

BLUEBERRY (*Vaccinium corymbosum* ‘Berkeley’)  
Mummy Berry; *Monilinia vaccinii-corymbosi*

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**Evaluation of Actinovate AG soil application for the management of mummy berry of blueberry, 2015.**

Actinovate AG and mulch treatments were arranged in a randomized complete factorial design, with each treatment replicated 6 times, in a field of ‘Berkeley’ blueberries planted in 1999 on 5 x 10 ft spacing. Plastic, bottomless, 1-gal nursery pots were placed between bushes such that the rim was 2 to 3 inches above the soil. A total of 50 mummies (pseudosclerotia) were placed into each pot, in direct contact with the soil, on 23 Sept 14. Pseudosclerotia were left nontreated or drenched with Actinovate AG, and covered with mulch. The Actinovate AG treatment was applied at a rate of 1 tsp/gal where approximately 400 ml of the suspension was drenched onto each group of pseudosclerotia. Mulch treatments included blueberry leaf mulch, 0.5 inch or 2.0 inches of Douglas-fir sawdust. Actinovate AG and mulch treatments were applied on 11 Nov 14.

Apothecia started to emerge on 14 Mar 15 and continued until 16 Apr 15. The numbers of apothecia were counted on 14, 18, 25, and 31 Mar 15, and 9, 16, and 21 Apr 15. No apothecia were observed on the final count taken on 21 Apr 15 and this was considered the end of the sporulation interval. The area under the disease progress curve (AUDPC) was calculated using a trapezoidal approximation for area under the curve applied to all data collection dates for every subplot. No interaction was detected between Actinovate AG and mulch treatments so combined main effects were analyzed.

The week following the Actinovate AG application air temperatures ranged from 22°F to 36°F and soil temperatures were between 37°F to 44°F. This range is below minimum temperatures for biological activity of the active ingredient in Actinovate. Spring 2015 growing conditions were considered warm and dry. The number of apothecia found on 25 Mar and the AUDPC on mummies treated with Actinovate was not significantly different from apothecia found on nontreated mummies (Table 1). The fewest number of apothecia and the lowest AUDPC occurred in the 2.0 inch mulch treatment (Table 2), both were significantly lower than the nontreated control. All other treatments were not significantly different from the nontreated control. The Actinovate AG treatment will be tested again during the 2015 to 2016 dormant season and applied when air and soil temperatures are above 50°F.

Table 1. Effect of Actinovate AG.

Treatment	Apothecia 25 Mar 15*	AUDPC*
Nontreated .....	13.6 a	37.4 a
Actinovate AG at 1 tsp/gal...	12.1 a	29.8 a

\* Means followed by same letter do not differ significantly based on Fisher’s protected LSD (P=0.05).

Table 2. Effect of leaf or Douglas-fir mulch.

Treatment	Apothecia 25 Mar 15*	AUDPC*
Leaf mulch .....	17.3 a	45.5 a
0.5 inch mulch .....	19.0 a	48.2 a
2.0 inch mulch .....	2.3 b	7.2 b

\* Means followed by same letter do not differ significantly based on Fisher’s protected LSD (P=0.05).