

BLUEBERRY (*Vaccinium corymbosum* 'Berkley')  
Mummy berry; *Monilinia vaccinii-corymbosi*

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### **Evaluation of materials for management of mummy berry, 2011.**

Fungicide treatments were arranged in a randomized complete block design in a block of 'Berkley' blueberries planted in 1999 on 5 x 10 ft spacing. Each treatment consisted of 6 single bush replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at approximately 100 psi at a rate of 290 gal water/A. Approximately 2 gal of a spray suspension were applied per 6 bushes. Treatments were applied on 31 Mar (floral bud break, minor vegetative bud break), 12 Apr (vegetative bud break), 22 Apr (pink bud), 5 May (25% bloom), 14 May (full bloom), and 27 May (late bloom). Each fungicide treated bush was flanked on each side by nontreated bushes. Kocide 2000 (3 lb/A) plus Kocide 3000 (3 lb/A) was applied on 3 Nov 10 (40% leaf drop) to help prevent bacterial blight. Maddog (3.6 fl oz/gal) was spot sprayed throughout the block to control weeds on 11 Mar and Rely (2.5 fl oz/gal) was used in the same manner on 29 Jun. Bushes were pruned 13 to 20 Jan by thinning out small, dead and spindly shoots and removing older non-productive stems. Plots were fertilized only on 29 Apr with approximately 170 lb/A (based on in the bush row area) of 22-0-0-24. Overhead irrigation was started on 20 Jun and continued 2 times per week during the growing season. The number per bush of floral clusters and vegetative shoots with symptoms of primary mummy berry was evaluated on 11 and 20 May. On 5 Jul, approximately 300 berries were harvested arbitrarily from each Berkley plant and placed in a refrigerator. Over the next few weeks 200 berries were arbitrarily selected, cut in half and evaluated for symptoms of secondary mummy berry (white mycelial mats within the carpels of the berry) and fruit russet.

Apothecia started to emerge and open on 28 Mar and continued until the last one was observed on 25 Apr. Primary mummy berry symptoms were first observed on both flower clusters and shoots starting 2 May. Spring conditions started out normal but prolonged cool wet weather resulted in slow plant development. The highest number of floral and vegetative mummy berry strikes per bush was on nontreated bushes. All fungicide treated bushes had significantly less primary mummy berry develop than on nontreated bushes. Lowest number of flower trusses with primary mummy berry was found on bushes treated with Pristine plus Nu-film-P, however, the number found on bushes treated with Proline, Indar plus Nu-Film-P, Quash, or a combination of MBI plus Indar and Pristine were not significantly different. No vegetative shoots with primary mummy berry were found on bushes treated with Proline, however, the number found on bushes treated with all other materials except MBI plus Nu-film-P were not significantly different. The highest amount of fruit with secondary mummy berry was on nontreated bushes but the amount found on Tilt or MBI plus Nu-film-P treated bushes was not significantly different. No mummy berry fruit rot was found on bushes treated with Proline but the amount found on bushes treated with Pristine plus Nu-film-P or Quash was not significantly different. No phytotoxicity was observed in bushes treated with any of the various materials used.

The Proline rate was too high and should have been tested at a lower rate. Quash worked as well as Indar during the primary phase but better during the secondary phase. Tilt did not perform as well as the other DMI's in this trial. The MBI product worked well during the primary phase but was likely overwhelmed with secondary inoculum during bloom. Tighter, 7 to 10 day intervals may work better for this biological product.

Treatment & Rate/A	Time of Application*	Floral strikes per bush**		Vegetative strikes per bush**		Mummy Berry (% Fruit)**
		11 May	20 May	11 May	20 May	
Nontreated .....	None.....	50.0 a	73.7 a	22.2 a	49.3 a	61.0 a
Tilt at 6 fl oz/A.....	All.....	9.3 bc	13.3 cd	0.5 b	1.2 c	55.0 a
Proline 480 SC at 16 fl oz .....	All.....	2.7 cd	2.3 e	0.0 b	0.0 c	0.0 c
Pristine 36 WDG at 23 oz plus						
Nu-film-P at 6 fl oz/100 gal.....	All.....	1.0 d	1.2 e	0.0 b	0.8 c	13.7 bc
Indar 2F at 6 fl oz plus						
Nu-film-P at 6 fl oz/100 gal.....	All.....	4.0 cd	4.5 de	0.0 b	0.2 c	22.5 b
MBI-10605 at 1 gal plus						
Nu-film-P at 6 fl oz/100 gal.....	All.....	14.3 b	30.5 b	0.5 b	6.0 b	53.3 a
MBI-10605 at 1 gal plus						
Indar 2F at 6 fl oz plus						
Nu-film-P at 6 fl oz/100 gal then	A, B, C, D					
Pristine 36 WDG at 23 oz plus						
Nu-film-P at 6 fl oz/100 gal.....	E, F.....	2.8 cd	3.8 de	0.2 b	0.7 c	21.0 b
MBI-10605 at 1 gal plus						
Nu-film-P at 6 fl oz/100 gal Alt	A, C					
Indar 2F at 6 fl oz plus						
Nu-film-P at 6 fl oz/100 gal then	B, D					
Pristine 36 WDG at 23 oz plus						
Nu-film-P at 6 fl oz/100 gal.....	E, F.....	12.0 b	19.5 c	1.0 b	4.3 bc	27.2 b
Quash 50 WDG at 2.5 oz plus						
Regulaid at 32 fl oz/100 gal.....	All.....	1.3 d	1.3 e	0.2 b	0.2 c	0.3 c
Quash 50 WDG at 2.5 oz plus						
Regulaid at 32 fl oz/100 gal Alt	A, C, E					
Pristine 36 WDG at 23 oz plus						
Regulaid at 32 fl oz/100 gal .....	B, D, F.....	3.2 cd	2.2 e	0.0 b	0.2 c	1.2 c

\* Treatments were applied on A = 31 Mar (floral bud break, minor vegetative bud break), B = 12 Apr (vegetative bud break), C = 22 Apr (pink bud), D = 5 May (25% bloom), E = 14 May (full bloom), and F = 27 May (late bloom).

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

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