BLUEBERRY (*Vaccinium corymbosum* 'Draper')
Bacterial Canker; *Pseudomonas syringae* pv. *syringae*

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**Evaluation of Application Timing for Management of Blueberry Bacterial Canker, 2014.**

Fungicide treatments were arranged in a (randomized) complete block design in a block of 'Draper' blueberries planted in 1999 on 5 x 10 ft spacing at Riverbend Organic Farm. Each treatment consisted of a set of 6 bushes replicated 8 times. Treatments were separated by 2 nontreated bushes. Fungicide treatments were applied using a backpack sprayer equipped with a XR Teejet 8005 VS nozzle at a rate of 30 gal water/A. Approximately 3 gal of a spray suspension were applied per 48 bushes. Treatments were applied on 1 Nov 13 (beginning of leaf fall), 16 Dec 13 (5-10% leaves still on), and 4 Mar (bud swell with terminal bud break). Bactericide treatments consisted of Nu-Cop 50 DF at 4 lb/A plus Nu-Film-P at 4 oz/A. Bushes were pruned during Oct 2013 prior to the first application of bactericide. The number of shoots showing symptoms of bacterial canker (progressive dieback of shoot tips involving at least one bud) was evaluated on 13 and 23 Mar 2014 and 8 Apr 2014. Several symptomatic shoots were collected from nontreated bushes to verify and isolate for the pathogen. Isolates were streaked onto CYE medium amended with 0.32 mM CuSO4.

The dormant season was considered unusually dry and with record cold temperatures recorded on 8 Dec 2013 and 6 Feb 2014. Some shoot dieback was first observed on 10 Jan 2014. Overall disease pressure was considered light. *Pseudomonas syringae* was isolated from only 35% of the symptomatic shoots collected. All of these bacterial isolates grew on copper amended media and were considered copper tolerant. Highest amount of shoot dieback occurred in nontreated plots while lowest amount occurred in plots treated in the fall only. Bushes treated with Nu-Cop were significantly different from nontreated bushes only on 23 Mar. On that rating date, only bushes treated in the fall had significantly less shoot dieback than nontreated bushes. Data are suggestive that fall applications are more important than spring applications but low disease pressure indicates there was little need for any applications.

| Treatment & Rate/A | Time of Application[x] | # of Shoots/6 plants[z] | | |
|---|---|---|---|---|
| | | 3/13/14 | 3/23/14 | 4/8/14 |
| Non-treated …… | None……. | 3.4 ab | 4.8 a | 6.0 |
| Nu-Cop 50 DF at 4 lb plus Nu-Film-P at 4 fl oz……..... | A and B only | 1.4 b | 1.8 b | 2.5 |
| Nu-Cop 50 DF at 4 lb plus Nu-Film-P at 4 fl oz……..... | C only | 4.3 a | 3.6 ab | 5.0 |
| Nu-Cop 50 DF at 4 lb plus Nu-Film-P at 4 fl oz……..... | All…… | 2.1 ab | 2.1 b | 3.8 |

[x] Treatments were applied on A = 1 Nov 13 (beginning of leaf fall), B = 16 Dec 13 (5-10% leaves still on), and C = 4 Mar 14 (bud swell with terminal bud break).

[z] Means followed by same letter do not differ significantly based on Fisher's protected LSD (*P=0.05*). Means without letters were not significantly different.