

CHERRY (*Prunus avium* ‘Sweetheart’)  
 Bacterial Canker; *Pseudomonas syringae*

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**Evaluation of Kasumin for management of bacterial canker on cherry, 2009.**

Symptoms of bacterial canker of cherry can include dead, necrotic buds that fail to open in the spring and collapsing floral buds before and during bloom as well as the classic gumming cankers on stems, branches and trunks. This trial was initiated to evaluate the antibiotic Kasumin for management of symptoms of bacterial canker on cherry trees. Treatments were arranged in a randomized complete block design in a ‘Sweetheart’ sweet cherry orchard on MxM60 rootstock planted in 1999 on 20 x 20 ft spacing. This orchard, near Gervais OR, had severe bacterial canker on most every tree during the 2007 and 2008 growing seasons. Each treatment was applied to an adjacent set of 3 trees and replicated 4 times. Bactericides were applied using a Stihl SR400 Air blast backpack sprayer at a rate of 100 gal water/A. Approximately 11 gal of a spray suspension were applied per 12 trees. Bactericide treatments were applied on 11 Nov 08 (leaf fall), 31 Dec 08 (Dormant), 3 Apr 09 (10% popcorn), and 20 Apr 09 (full bloom). Applications to all trees by the grower included Rovral 4 Flowable (2 pt/A) on 8 Apr 09 and Bravo Wether Stik (4 pt/A) plus 6.8% Zinc (1 pt/A) on 1 May 09 for control of brown rot blossom blight. A total of 20 limbs without symptoms of bacterial canker were flagged on 12 Nov 08. Incidence of spurs with dead buds was evaluated on 5 and 12 May 09 by examining the previous year’s growth on the 20 flagged limbs for spurs with buds that failed to open or collapsed and died during the spring.

The winter dormant season was marked with colder than normal temperatures along with snow and ice storms. Spring weather conditions were cold and dry and considered less favorable for bacterial canker development. Symptoms of dead bud were observed through out the spring bloom period with a little gummosis associated with dead spurs. Some brown rot blossom blight was also present at a lower level and may have been included in the dead bud counts. The incidence of dead buds on limbs was highest on trees treated with Kocide. The incidence of dead buds on limbs from Kasumin treated trees was not significantly different on limbs from nontreated trees. Kasumin treated trees had the lowest number of dead spurs and was significantly lower than the number of dead buds found on nontreated trees. No phytotoxicity was observed in trees treated with either of the materials used.

| Treatment & Rate/A        | Bacterial Canker<br>Dead Spur Buds/20 Limbs |                           |
|---------------------------|---|---------------------------|
|                           | Incidence (%)*                              | # of dead spurs/20 limbs* |
| Nontreated .....          | 38 b  | 28 b                      |
| Kocide 2000 at 6 lb ..... | 61 a  | 37 a                      |
| Kasumin 2 L at 4 pt ..... | 39 b  | 19 c                      |

\*Treatments were applied on 11 Nov 08 (leaf fall), 31 Dec 08 (Dormant), 3 Apr 09 (10% popcorn), and 20 Apr 09 (full bloom). Means followed by the same letter do not differ significantly based on Fisher’s protected LSD (P=0.05).

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