LILAC (Syringa vulgaris 'Ellen Willmott')

Bacterial Blight; Pseudomonas syringae pv. syringae

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Bactericides for control of bacterial blight of lilac, 2004.

The objective of the trial was to evaluate the efficacy of the biological material known as Rhapsody on bacterial blight of lilac. The plants were not inoculated as has been done in the past with known isolates of *Pseudomonas syringae* pv. syringae. Bactericide treatments were arranged in a randomized complete block design in a block of 'Ellen Willmott' lilacs planted in 1993 on a 5 x 15 ft spacing. Each bactericide treatment consisted of 4 single shrub replicates. Nontreated bushes were on either side of treated bushes. All bactericides were applied using a pump-style backpack sprayer at a rate of 66 to 89 gal water/A, depending on the amount of foliage present on bushes. Approximately1.5 to 2 gal of a spray suspension was applied per 4 bushes. All treatments were applied on 12 Mar (late bud break), 19 Mar (early shoot growth) at 1.5 gal solution/4 bushes and on 27 Mar (early bloom), and 3 Apr (30% bloom) at 2 gal solution/4 bushes. No fertilizer was broadcast around shrubs. Incidence of bacterial blight was evaluated on 8 Apr by examining the 4 basal leaves on each of 25 shoots per bush (for a total of 100 leaves per bush).

The spring season was characterized as extremely dry with below average rainfall. Only 1.26 in rain fell during the course of this trial and one minor frost event occurred on 1 Apr. Disease pressure was rated as extremely low. Typical bacterial blight symptoms were not observed this spring. Small, necrotic leaf spots that resemble initial blight symptoms were observed on the 4 basal leaves of shoots on 5 Apr. These spots did not enlarge or produce further symptoms. Bushes treated with Rhapsody had the highest incidence of necrotic spotting on basal leaves which was significantly higher than the incidence on nontreated bushes. Incidence on copper treated bushes was significantly lower than nontreated bushes. Slight leaf phytotoxicity was observed on copper treated plants.

	Basal leaves with necrotic spots (%)*
Treatment & Rate/A	April 8
Nontreated	21.0 b
Kocide 2000 T/N/O DF 0.75 lb	6.5 c
Junction DF 1.5lb	5.3 c
Rhapsody 4 to 5.3 qt	31.0 a

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