CRABAPPLE (*Malus* sp.)
Scab; *Venturia inaequalis*

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Evaluation of Orkestra for management of apple scab on crabapple, 2018

Fungicide treatments were arranged in a randomized complete block design on crabapples (unknown cultivar on EMLA 26 rootstock) planted within an orchard of 'Braeburn' apples on ELMA-111 rootstock planted in 1995 on 20 x 20 ft spacing. The 15 row by 10 tree orchard had 2 crabapples planted in every other row as the 3rd and 8th tree in a row with 'Braeburn' trees. Each treatment consisted of 4 single tree replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at approximately 100 psi such that 4 to 5 gal of a spray suspension was applied per 4 trees (109 to 136 gal/A). Treatments were applied on 19 Mar (green tip to some tight cluster), 29 Mar (tight cluster), 9 Apr (pink), 23 Apr (petal fall). No fertilizer was spread within tree rows. Trees were not pruned. A dormant oil spray of Omni supreme-oil (1.5 gal/A) and Badge SC (16 fl oz/A) was applied on 21 Feb for aphid management and fire blight, respectively. Assail 70 WP (3 oz/A) was applied 24 May for aphid and coddling moth management. Insecticide sprays were applied to the entire block using a Rear's air blast speed sprayer. Weedbar 64 (64 fl oz/A) was applied on 5 Mar and Casaron CS (2.5 gal/A) was applied on 16 Mar for weed control. Apple scab infection periods were monitored using an Adcon weather station equipped with standard sensors. Using a modified primary infection model (wet periods start with rain and end with 8 hr drying time), a total of 8 infection periods were detected from late Mar through May: 2 high infection periods (21 Mar and 27 Apr) and 6 moderate infection periods (8 Mar, 5, 7, 11, 14 and 16 Apr). The incidence of leaf scab was determined on 4 May, by examining all leaves from 20 arbitrarily selected vigorous shoots (116 to 186 leaves with an average of 148 leaves) from each tree. Incidence of scab on fruit was also determined on 4 May by examining 100 fruit arbitrarily selected from each tree.

Spring weather conditions were considered cool and wet but unusually dry beginning in May. Scab was first observed 11 Apr. All crabapples treated with fungicide had significantly less apple scab on leaves and fruit than non-treated trees. Addition of Induce resulted in significantly less scab on leaves. No phytotoxicity was observed in trees treated with any of the various materials used.

Treatment & Rate/100 gal	Time of Application*	Apple Scab**	
		Leaves (%)	Fruit (%)
Non-treated …….	None……	99.5 a	99.5 a
Orkestra at 8 fl oz ……	All…….	61.4 b	61.5 b
Orkestra at 8 fl oz plus Induce at 16 fl oz……..	All…….	35.3 c	35.5 b

* Treatments were applied on 19 Mar (green tip to some tight cluster), 29 Mar (tight cluster), 9 Apr (pink), 23 Apr (petal fall).

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