

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

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Evaluation of a growth regulator for control of apple scab on Crabapple, 2007

Fungicide treatments were arranged in a randomized complete block design on crabapple pollenizers interplanted in a block of ‘Braeburn’ apples, planted in 1995 on 20 x 20 ft spacing. Each treatment consisted of 4 single tree replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at approximately 110 psi such that 4 to 6 gal of a spray suspension were applied per 4 trees (108 to 135 gal/A) depending on the time of year. Treatments were applied on 28 Mar (pink) and 25 May (cover). No fertilizer was spread within tree rows. Insecticide sprays were applied to the entire block using a Rear’s air blast speed sprayer. Omni dormant oil spray (4 gal/A) was applied on 4 Mar for aphid control. Assail 70 WDG (5 oz/A) was applied on 25 May and 10 Jul and Success (8 oz/A) was applied on 8 Jun for codling moth management. Weeds, in the tree row, were treated with Buccaneer (16 oz/A) plus Goaltender (8 oz/A) on 13 Mar and with Buccaneer (16 oz/A) plus Rely (16 oz/A) on 8 May. The entire block of trees was irrigated using low angle sprinkler heads for 8 hours in late Aug. Apple scab infection periods were monitored using an Adcon A730 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 11 infection periods were detected from bud break in late Mar through Jun: 3 high infection periods (8, 11 and 21 Apr); 2 moderate infection periods (16 Apr and 3 May) and 6 low infection periods (19 Mar, 7 Apr, 1, 18 and 20 May and 9 Jun). The percent defoliation on a whole tree basis was rated on 5 Jun using the following rating system: 0 = No defoliation, 1 = 1 to 25% defoliation, 2 = 26 to 50% defoliation, 3 = 51 to 75% defoliation, 4 = 76 to 99% defoliation and 5 = complete defoliation.

Spring weather conditions in Western Oregon were considered average with plenty of wet periods at moderate temperatures resulting in several infection periods for various diseases. Applications of fungicide were made well after the first scab infection periods so disease pressure was expected to be high. First scab lesions were observed on 9 Apr. There was no significant difference in defoliation observed between fungicide treated trees and nontreated trees. Trees treated only once with CVG-349 had significantly longer shoots than on nontreated trees. It is unknown why trees treated twice had about the same length of shoots as nontreated trees. Based on research from other areas of the country this same set of trees should be observed over the next three years to see if fungicidal effects occur in future years.

Treatment & Rate/100 gal	Time of Application*	Defoliation (%)**	Ave. Shoot Length (in)**
Nontreated	None	3.3	5.4 a
CVG-349 at 80 oz plus			
Quest at 32 oz plus			
Nu-Film at 16 oz	A.....	3.8	13.5 b
CVG-349 at 80 oz plus			
Quest at 32 oz plus			
Nu-Film at 16 oz	A, B.....	3.8	4.4 a

* Treatments were applied on A = 28 Mar (pink) and/or B= 25 May (cover).

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