

HAZELNUT (*Corylus avellana* 'Ennis')
Eastern Filbert Blight; *Anisogramma anomala*

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Evaluation of fungicide programs for control of eastern filbert blight, 2009 - 2010.

Healthy appearing two-year-old 'Ennis' hazelnut trees were planted on 23 Jan 09 at the North Willamette Research and Extension Center, Aurora, OR. Limbs with EFB cankers were cut from heavily diseased 'Ennis' trees at NWREC from Nov to Dec 08. A total of 400 cankered limbs were placed above test trees on chicken wire, supported by a 6 wire horizontal trellis, on 23 Feb 09. Treatments were arranged in a randomized complete block design. Each treatment consisted of 4 single tree replicates. Fungicides were applied to trees from two directions until runoff using a Solo-Pump-Style backpack sprayer. Approximately 0.15 gal of a spray suspension was used per 4 trees. Fungicide treatments were applied on 26 Mar 09 (bud break), 7 Apr 09, 21 Apr 09 and 5 May 09 for a total of 4 applications. Sucker shoots were killed on trees using Rely (60 oz/A) on 18 May 09. Honcho (2 qt/100 gal) plus Goal Tender (3 oz/100 gal) was applied to control weeds between trees on 15 Apr 09 and 30 Apr 09. Honcho (2 qt/100 gal) alone was used on 18 May 09, 18 Jun 09 and 24 Aug 09 for weed control. Preen (6 lb/1,000 sq ft, with fertilizer 9-17-9) was used on 13 May 09 and 18 Jun 09. Trees were fertilized with 16-16-16 at a rate of 1 lb/8 trees on 28 May 09, 23 Jun 09 and 16 Apr 10. Supplemental irrigation was provided as needed during the 2009 growing season. The number of EFB cankers on the main tree trunk and total length of these cankers/tree was determined on 13 Jul 10.

Several cankers developed on nontreated trees in comparison to last year when almost no cankers developed despite similar spring weather. Nontreated trees had significantly more cankers than any of the various fungicide treated trees. There were no significant differences among any of the various fungicide program treatments.

After several years of testing, we have not seen any significant benefit in disease control of one program over another. All materials used in a program must be effective against EFB and used at labeled rates. Some years, one or more materials may not be effective which will result in poor EFB control that year for the entire program.

Treatment and Rate/100 gal water	Application Timing**	Ave Number of Cankers/Tree*	Total Canker Length/Tree* (cm)
Nontreated	None	10.3 a	162.5 a
Procure 480 SC at 6 fl oz plus Bravo Weather Stik at 16 fl oz	All 4 apps.....	1.5 bc	16.3 b
Procure 480 SC at 6 fl oz plus Bravo Weather Stik at 32 fl oz then Gem 500 at 4 fl oz plus Silwet L-77 at 6.4 fl oz then Procure 480 SC at 6 fl oz then Cabrio 20 EG at 4 oz plus Silwet L-77 at 6.4 fl oz.....	Bud Break Bud Break 2 wks later 2 wks later 4 wks later 6 wks later 6 wks later.....	1.3 b	20.3 b
Bravo Weather Stik at 32 fl oz then Procure 480 SC at 6 fl oz plus Gem 500 at 4 fl oz plus Silwet L-77 at 6.4 fl oz then Cabrio 20 EG at 4 oz plus Silwet L-77 at 6.4 fl oz then. Procure 480 SC at 6 fl oz	Bud Break 2 wks later 2 wks later 2 wks later 4 wks later 4 wks later 6 wks later.....	0.5 bc	9.3 b
Bravo Weather Stik at 32 fl oz then Procure 480 SC at 6 fl oz then Gem 500 at 4 fl oz plus Silwet L-77 at 6.4 fl oz then Cabrio 20 EG at 4 oz plus Silwet L-77 at 6.4 fl oz plus Procure 480 SC at 6 fl oz	Bud Break 2 wks later 4 wks later 4 wks later 6 wks later 6 wks later 6 wks later.....	0.3 c	6.5 b

* Analysis of variance is based on log₁₀ (x+1) transformation. Means followed by the same letter do not differ significantly based on Fisher's protected LSD (P=0.05).

** Fungicide treatments were applied on BB = Bud Break (26 Mar 09), 2 wks = 2 weeks after bud break (7 Apr 09), 4 wks = 4 weeks after bud break (21 Apr 09), and 6 wks = 6 weeks after bud break (5 May 09).