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

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Evaluation of fungicide tank mixes for control of eastern filbert blight, 2008 - 2009.

Healthy appearing two-year-old 'Ennis' hazelnut trees were planted on 16-17 Jan 08 at the North Willamette Research and Extension Center, Aurora, OR. Limbs with EFB cankers were cut from a heavily diseased 'Ennis' orchard near Keiser, OR on 12 Dec 07. A total of 400 cankered limbs were placed above test trees on chicken wire, supported by a 6 wire horizontal trellis, on 28 Feb 08. Treatments were arranged in a randomized complete block design. Each treatment consisted of 6 single tree replicates. Fungicides were applied to trees from two directions until runoff using a Solo backpack pump style sprayer. Approximately 0.25 gal of a spray suspension was used per 6 trees. Fungicide treatments were applied on 19 Mar 08 (bud break), 2 Apr 08, 16 Apr 08 and 1 May 08 for a total of 4 applications. Sucker shoots were killed on treatment trees using Rely (60 oz/A) on 8 May and 12 Jun 08. Roundup ULTRAMAX (2 qt/100 gal) plus Oryzalin (1 qt/100 gal) plus Rely (4 qt/A) was applied to control weeds between trees on 6 May 08. Rely (4 qt/A) was used 14 May 08 for weed control followed by Preen (6 lb/1,000 sq ft, with fertilizer 9-17-9) on 4 Jun 08. Last application of herbicide for the year was Roundup ULTRAMAX (2 qt/100 gal) plus Rely (4 qt/A) on 7 Aug 08. Trees were fertilized with 46-0-0 at a rate of 0.8 lb/6 trees on 19 Jun 08. Supplemental irrigation was provided as needed during the 2008 growing season. The number of EFB cankers on the main tree trunk and total length of these cankers/tree was determined on 26 Aug 09.

There were no significant differences between any of the various treatments. This does not allow us to make any conclusions regarding these treatments. Canker numbers were slow to develop and uncharacteristically low even for nontreated trees. Although spore counts were considered low the amount was similar to last year when check trees had several cankers per tree. Since 'Ennis' trees are susceptible the weather may have had an influence on infection levels. The spring was characterized as cold with most crops, including hazelnuts, 2 weeks later than normal in growth and development throughout the growing season. Further analysis is warranted since the only other year a similar result occurred was during the 1999 infection season.

Treatment and Rate/100 gal water	Ave Number of Cankers/Tree*	Total Canker Length/Tree* (cm)
Nontreated ……...……...…	0.7	10.5
Bravo Weather Stik at 32 fl oz plus Orbit 3.6 EC at 4 fl oz ……..……...	0.0	0.0
Bravo Weather Stik at 32 fl oz plus Orbit 3.6 EC at 2 fl oz ……..…….	0.0	0.0
Bravo Weather Stik at 16 fl oz plus Orbit 3.6 EC at 4 fl oz ……..…….	0.0	0.0
Bravo Weather Stik at 16 fl oz plus Orbit 3.6 EC at 2 fl oz ……..…….	0.0	0.0
Bravo Weather Stik at 32 fl oz plus Cabrio 20 EG at 4.75 oz ……..……...	0.5	6.8
Bravo Weather Stik at 16 fl oz plus Cabrio 20 EG at 4.75 oz ……..……...	0.2	0.8
Bravo Weather Stik at 32 fl oz plus Cabrio 20 EG at 2.4 oz ……..……...	0.3	4.3
Bravo Weather Stik at 16 fl oz plus Cabrio 20 EG at 2.4 oz ……..……...	0.0	0.0
Orbit 3.6 EC at 4 fl oz plus Cabrio 20 EG at 4.75 oz ……..……...	0.0	0.0

* Analysis of variance is based on log10 (x+1) transformation. Means did not differ significantly based on Fisher's protected LSD (P=0.05).