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

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EVALUATION OF ELITE AND FLINT FOR CONTROL OF EASTERN FILBERT BLIGHT, 2001 - 2002. Healthy two-year-old 'Royal' hazelnut trees were planted on 5 Feb 01 at the NWREC, Aurora, OR. Limbs with EFB cankers were cut from a heavily diseased 'Bacellona' orchard near North Plains, OR on 21 Feb 01 and from an 'Ennis' orchard near Keiser, OR on 14 Mar 01. A total of 100 cankered limbs were placed on top of chicken wire supported by a 6 wire horizontal trellis above test trees on 21 Feb 01 and 14 Mar 01. Treatments were arranged in a randomized complete block design. Each treatment consisted of 7 single tree replicates. Fungicide suspensions were applied on two sides of the tree to runoff with a backpack sprayer equipped with a hand wand. Approximately 1.1 gal of a spray suspension was used per 7 trees. Fungicide treatments were applied on 23 Mar 01 (bud break), 4 & 18 Apr 01, and 2 May 01. Roundup at 2 gal/100 gal water was used between trees to control weeds on 25 Apr 01. Sawdust mulch was placed around the base of each tree on 18 May 01. Trees were painted with a 50% solution of white latex paint on 25 Apr 01 on the sw side of the trunk to prevent summer sunburn. Supplemental irrigation was provided as needed during 2001 and 2002. The number and length of shoots on nontreated and Messenger treated trees was determined on 15 Feb 02. The number of EFB cankers and total length of all cankers/tree was determined on 10 July 02.

Spore counts in adjacent plots were as high or higher than in previous years when the trial was located next to heavily infected orchards. All fungicide treated trees had significantly fewer cankers than nontreated trees except for trees treated with Allityn alone (Table 1). Trees treated with Flint alone had the fewest cankers but cankers on trees treated with Elite plus Flint or Elite plus Allityn were not significantly different. Trees treated alone or in combination with Flint tended to have better disease control. The addition of Allityn or Messenger did not result in significantly fewer cankers than on trees treated with Elite alone. Data on canker length reflected the canker number data. None of the fungicide treated trees showed any phytotoxicity during the first growing season. The average shoot length on trees treated with Elite plus Messenger was not significantly different from those on nontreated trees (Table 2).

Table 1. EFB cankers on fungicide treated trees.

Treatment and Rate/100 gal water	Ave Number of Cankers/Tree*		Total Canker Length/Tree* (cm)	
Nontreated ……...……...……...	5.1	a	76.7	ab
Elite 45 DF at 2 oz…….……..	1.7	b	25.4	bc
Flint 50 WG at 1 oz ……	0.1	c	0.5	e
Elite 45 DF at 1.67 oz plus Flint 50 WG 0.67 oz…….……..	0.6	bc	4.9	de
Elite 45 DF at 1 oz plus Flint 50 WG 0.83 oz…….……..	0.4	c	5.1	e
Elite 45 DF at 2 oz plus Allityn 50 EC 2 fl oz…….……..	0.9	bc	15.3	cd
Allityn 50 EC 2 fl oz…….……..	4.0	a	75.7	a
Elite 45 DF at 2 oz plus Messenger 8 oz…….……..	1.6	b	19.9	cd

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

Table 2. Shoot length on Messenger treated trees.

Treatment and Rate/100 gal water	Ave. Shoot Length* (Inches)
Nontreated ……...……...……...	2.4
Elite 45 DF at 2 oz plus Messenger 8 oz…….……..	1.9

* Means were not significantly different based on a 2-tailed Student's T-test (n = 6; P = 0.29).