

Evaluation of Fontelis and picoxystrobin for control of eastern filbert blight, 2010 - 2011.

Healthy appearing two-year-old ‘Ennis’ hazelnut trees were planted on 21 Jan 10 to 3 Feb 10 at the Botany and Plant Pathology Field Laboratory, Corvallis, OR. Limbs with EFB cankers were cut from a heavily diseased ‘Ennis’ orchard near Keizer, OR from 30 Nov 09 to 4 Dec 09. A total of 400 cankered limbs were placed above test trees on chicken wire, supported by a 6 wire horizontal trellis, on 23 Feb 10 and 2 Mar 10. Treatments were arranged in a randomized complete block design. Each treatment consisted of 8 single tree replicates. Fungicides were applied to trees from two directions until runoff using a Solo-Pump-Style backpack sprayer. Approximately 0.25 gal of a spray suspension was used per 8 trees within each treatment. Fungicide treatments were applied on 10 Mar 10 (bud break), 23 Mar 10, 6 Apr 10, and 19 Apr 10 for a total of 4 applications. Sucker shoots were sprayed using Rely (60 oz/A) on 14 May 10 and 9 Jul 10. Rely (60 oz/A) and Roundup (120 oz/A) plus surfactant was applied to control weeds between trees on 23 Apr 10, 6 May 10 and 31 Aug 10. Rely (60 oz/A) and Maddog plus surfactant was applied to control weeds between trees on 6 May 10 and 26 Jul 10. Preen (6 lb/1,000 sq ft, with fertilizer 9-17-9) was used on 30 Apr 10. Trees were fertilized with 29-5-5 at a rate of 1 lb/8 trees on 19 Jul 10. Supplemental irrigation was provided as needed during the 2010 growing season. The number of EFB cankers on the main tree trunk and total length of these cankers/tree was determined on 17 and 19 Aug 11.

Although bud break was similar to previous years, the weather was cold and wet resulting in delayed tree development during the spring. The number of cankers on trees treated with the high rate of Fontelis plus Induce was not significantly different from the number of cankers on nontreated trees. Trees treated with Fontelis alone or with the addition of Induce tended to have elevated canker numbers. The lowest number of cankers was found on trees treated with the high rate of DPX-Q8Y78 plus Induce, however, trees treated with DPX-Q8Y78 (penthioyprad plus picoxystrobin), DPX-YT669 (picoxystrobin) or Fontelis plus Bravo were not significantly different. No phytotoxicity was observed on any of the fungicide treated trees.

Treatment and Rate/100 gal water	Ave Number of Cankers/Tree*	Total Canker Length/Tree* (cm)
Nontreated	6.1 a	189.3 a
Bravo Weather Stik at 2 pt.....	1.8 cd	45.4 cd
Fontelis (LEM 17) at 14 fl oz ...	2.8 bc	74.8 bc
Fontelis at 14 fl oz plus Induce at 32 oz.....	3.1 bc	64.0 bc
Fontelis at 20 fl oz plus Induce at 32 oz.....	3.9 ab	114.8 ab
Fontelis at 14 fl oz plus Bravo Weather Stik at 1 pt	1.1 de	26.6 cd
DPX-YT669 at 8 fl oz plus Induce at 32 oz.....	0.6 de	9.6 de
DPX-YT669 at 12 fl oz plus Induce at 32 oz.....	1.0 de	20.0 de
DPX-Q8Y78 at 18 fl oz plus Induce at 32 oz.....	1.0 de	20.6 de
DPX-Q8Y78 at 24 fl oz plus Induce at 32 oz.....	0.4 e	6.4 e

* 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).