

**Evaluation of fungicide tank mixes for control of eastern filbert blight, 2006 - 2007.**

Healthy appearing two-year-old 'Ennis' hazelnut trees were planted on 24 Jan 06 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 15 Nov 05 and 6 Dec 05. A total of 400 cankered limbs were placed above test trees on chicken wire, supported by a 6 wire horizontal trellis, on 27 Feb 06. 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 0.4 gal of a spray suspension was used per 4 trees. Fungicide treatments were applied on 18 Mar 06 (bud break), 30 Mar 06, 13 Apr 06 and 27 Apr 06 for a total of 4 applications. Roundup ULTRAMAX (2% solution) was applied to control weeds between trees on 28 Mar 06 and 5 May 06. Trees were fertilized with Urea (46-0-0) at a rate of 1 lb/8 trees on 22 May 06. Supplemental irrigation was provided as needed during the 2006 growing season. The number of EFB cankers on the main tree trunk and total length of these cankers/tree was determined on 23 and 24 Jul 07.

Spore counts were low during March and April but began to rise during May. Trees treated with a combination of Flint and Orbit had a similar number of cankers as non-treated trees. Trees treated with Bravo had significantly fewer cankers than non-treated trees regardless if Orbit or Flint was in the tank mix. Trees treated with a half rate of Bravo and either Orbit or Flint had a similar number of cankers as trees treated with a full rate of Bravo and Orbit or Flint. Although more testing needs to be done, this data suggests that mixing a half rate of Bravo with other chemicals effective against eastern filbert blight might be an effective and sustainable disease management tactic.

Treatment and Rate/100 gal water	Ave Number of Cankers/Tree*	Total Canker Length/Tree* (cm)
Nontreated .....	5.3 a	71.4 a
Bravo Weather Stik at 32 fl oz plus Orbit 3.6 EC at 2.5 fl oz .....	1.3 bc	12.2 bc
Bravo Weather Stik at 16 fl oz plus Orbit 3.6 EC at 1.25 fl oz .....	0.5 c	6.4 c
Bravo Weather Stik at 32 fl oz plus Flint 50 WG at 1 oz .....	1.0 bc	8.9 c
Bravo Weather Stik at 16 fl oz plus Flint 50 WG at 0.5 oz .....	0.8 c	8.9 c
Flint 50 WG at 1 oz plus Orbit 3.6 EC at 2.5 fl oz .....	2.8 ab	27.9 ab
Flint 50 WG at 0.5 oz plus Orbit 3.6 EC at 1.25 fl oz .....	5.5 a	81.0 a

\* Analysis of variance is based on log<sub>10</sub>(x+1) transformation. Means followed by the same letter do not differ significantly based on Fisher's protected LSD (P=0.05).