

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

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GREENHOUSE EVALUATION OF PLANT ACTIVATORS AND FUNGICIDES FOR PROTECTION AGAINST EASTERN FILBERT BLIGHT, 2001 - 2002. Eight week old hazelnut seedlings grown from open-pollinated seed of 'Royal' were sprayed with various fungicides using a hand held pump sprayer on 16 Apr 01. Fungicide treatments included the plant activators Messenger and Actigard and the fungicides Echo 720, Rovral, Kaligreen and Switch. All materials were applied 24 hours before inoculation. An additional spray of the plant activators was applied 13 days prior to inoculation on 3 Apr 01. One treatment did not have any fungicide applied to inoculated plants and served as the nontreated control. Each treatment consisted of 4 sets of 12 seedling trees. After these materials had dried on plants for 24 hours, seedlings were inoculated with ascospores of *Anisogramma anomala* (5.0×10^6 spores per ml) using a pump sprayer. After inoculation, all seedlings were placed in a mist chamber with intermittent misting for 10 sec out of every 30 min during daylight hours. All seedlings were removed from the mist chamber after 3 days incubation and placed on greenhouse benches (70°F days and 62°F nights). Seedlings were transplanted from small "6-paks" to 1 gal pots on 25 May 01 and fertilized with Osmocote Slo-Release fertilizer 18-6-12 (1 teaspoon/pot) on 1 Jun 01. Seedlings were moved to an outside (colder), rain protected location on 28 Sept 01 then moved back into the greenhouse on 18 Apr 02 where temperatures were set at 70°F days and 62°F nights. Disease incidence was determined by recording trees that had died or showed symptoms of EFB or cambium staining below the point of inoculation during May 02.

Disease incidence values for trees treated with either plant activator were not significantly different from nontreated trees. Plant activators may need to be tested at higher rates or at shorter intervals prior to inoculation. Trees treated with the fungicides had significantly lower disease incidence than nontreated trees. Lowest disease incidence was for trees treated with Switch, Echo or Rovral. Activity against EFB with materials generally used against *Botrytis* or *Monilinia* provides new prospects for field-testing. Field tests using Vanguard resulted in poor control and indicate that the active product in Switch may be fludioxonil.

Treatment and Rate/100 gal	Disease Incidence (%) [*]
Nontreated.....	81 a
Echo 720 at 32 fl oz	4 c
Messenger at 8 oz	71 a
Actigard at 1 oz	73 a
Rovral 50 WP at 2 lb	8 bc
Kaligreen at 5 lb	21 b
Switch at 14 oz	4 c

*Means followed by the same letter do not differ significantly based on Fisher's protected LSD (P=0.05).

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