

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

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GREENHOUSE EVALUATION OF STROBILURIN FUNGICIDES FOR PROTECTION OR AFTER INFECTION ACTIVITY AGAINST EASTERN FILBERT BLIGHT, 1999 - 2000. Eight week old hazelnut seedlings grown from open-pollinated seed of 'Royal' were sprayed with various fungicides using a hand held pump sprayer on 8-11 Apr 99. After fungicide treatments dried for 24 hours, some seedlings were inoculated with ascospores of *Anisogramma anomala* (5.0×10^6 spores per ml) using a fine camel-hair brush. Some seedlings were treated with *A. anomala* spores 24 or 48 hours before application of fungicides. One treatment did not have any fungicide applied to inoculated plants and served as the nontreated control. Each treatment consisted of 5 sets of 12 seedling trees. All seedlings were placed in plastic bags with wet paper towels for 5 day incubation, removed and placed on greenhouse benches (70°F days and 62°F nights). Seedlings were transplanted, fertilized with Osmocote (14-14-14) and maintained in 1 gal pots on 13 May 99. Seedlings were moved to an outside (colder), rain protected location on 29 Oct 99. Seedlings were moved back into the greenhouse on 16 Mar 00 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 Apr 00.

Plants grew significantly better in gal containers rather than remaining in 6 pack trays. Significantly fewer seedlings developed EFB when treated with any of the three fungicides 24 hours before inoculation when compared to nontreated, inoculated seedlings. Significantly fewer seedlings developed EFB when treated with Sovran 24 hours after inoculation but had significantly more seedlings with EFB when compared to fungicide treatments 24 hours before inoculation. A statistically similar number of seedlings developed EFB when treated with Abound 24 or 48 hours after inoculation or Sovran at 48 hours when compared with nontreated, inoculated seedlings. This confirms field tests showing that the 2 strobilurins tested have little useful after infection activity against EFB.

Treatment and Rate/100 gal	Hours Before Inoculation	Hours After Inoculation	Disease Incidence (%)*
Nontreated.....	---	---	85.0 a
Bravo Weather Stik at 32 fl oz	24	---	4.8 c
Abound 2.08 F at 3.7 oz	24	---	8.2 c
Abound 2.08 F at 3.7 oz	---	24	74.8 a
Abound 2.08 F at 3.7 oz	---	48	81.6 a
Sovran 50 WG at 1.2 oz	24	---	1.6 c
Sovran 50 WG at 1.2 oz	---	24	45.2 b
Sovran 50 WG at 1.2 oz	---	48	76.6 a

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