HAZELNUT (*Corylus avellana* 'Ennis' and 'Barcelona')
Eastern Filbert Blight; *Anisogramma anomala*

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EFFECT OF PACLOBUTRAZOL (BONZI) ON THE DEVELOPMENT OF EASTERN FILBERT BLIGHT CANKERS, 2001: Unspecified reports from the mid-western United States indicated that the chemical paclobutrazol had an effect on limiting the development of certain canker diseases of trees. This chemical is highly systemic in many plants and is used as a plant growth regulator. Our objective was to determine if paclobutrazol, formulated as the product Bonzi, drenched onto the root zone of hazelnut trees could limit EFB canker development. Several field planted, three-year-old 'Royal' hazelnut trees exposed to natural EFB inoculum for 2 years were transplanted into 5 gal plastic pots on 18 Dec 00. The pot media used around the trees was Sunshine Growers A Mix. Trees were transported to the NWREC for the duration of the experiment. A group of 10 potted trees with EFB cankers were treated with a solution of 10 ppm paclobutrazol (9.5 ml Bonzi/1 gal water). Another 10 trees with cankers were left nontreated. A group of 10 trees without visible cankers but likely infected were also treated with 10 ppm paclobutrazol. The average amount of Bonzi solution used was 1,438 ml/5 gal pot based on minimal leaching from the bottom of the pot. Potted trees were treated on 4 Jun 01 after shoot elongation but prior to symptom development then transplanted into the field on 13 Jun 01. The presence and length of EFB cankers was determined on 23 Aug 01.

Trees without EFB cankers before treatment still developed an average of over 6 cankers per tree after treatment. At the end of the experiment, symptomatic trees treated with 10 ppm Bonzi had significantly more cankers (6.4 cankers per tree) than nontreated trees (4.6 cankers per tree). Also, treated trees had a significantly longer total canker length (60 inches) than nontreated trees (38 inches). Based on how the cankers were measured, it was not possible to determine the difference between old cankers that did not expand and new cankers that developed this growing season. Further experiments are needed to determine if paclobutrazol has any affect on canker development.