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Abstract/Excerpt

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A survey of hazelnut (*Corylus avellana* L.) genotypes for response to the eastern filbert blight pathogen [*Anisogramma anomala* (Peck) E. Müller] was performed. Seven varieties were discovered that did not display disease signs or symptoms when subjected to severe inoculation with *A. anomala* in the greenhouse and assayed for infection. These cultivars are 'Closca Molla', 'Ratoli', 'Yoder #5', 'Potomac', 'Medium Long', 'Grand Traverse' and 'Zimmerman'. 'Ratoli' and 'Closca Molla', both minor varieties from Spain, are superior agronomic types to the resistant cultivar Gasaway, which has been the main resistance source used in the breeding program. Only 'Zimmerman' carries the RAPD marker linked to resistance in populations segregating for the 'Gasaway' gene. Three populations were created using, 'Zimmerman', as the pollen parent in controlled crosses. These populations were inoculated with spores of the pathogen and assayed by indirect ELISA and by observation of canker incidence. Resistant phenotypes make up 84% of the populations, indicating that 'Zimmerman' possesses resistance either distinct from or additional to that found in, 'Gasaway'. A RAPD marker linked to the resistance gene in crosses with 'Gasaway' cosegregates with the resistant phenotype in all three populations (0 cM, 3 cM, 4 cM). Mechanisms to explain the distortion in these populations are discussed. Further studies are required to characterize the mechanism and inheritance resistance in these other clones.

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Hazelnuts, Control, Disease and pest resistance, Genetic aspects, Diseases and pests. There's Notes. Typescript (photocopy). Thesis (M.S.)--Oregon State University, 1999. Includes bibliogr resistance to eastern filbert blight in New Jersey, USA. Acta Hort. 1052:45-59. Eastern filbert blight in The Nutshell, quarterly newsletter of the Northern Nut Growers Association 64(2):16-24. Moln manage Eastern Filbert Blight. From this collection the breeding program continues to identify 'Zimmerman', useful resistance has been identified in Minnesota seedling OSU 408.040, Span selection 759.010, and Serbian cultivars 'Uebov' and 'Crvenje 3/96'. This row of trees has high trees of intermediate resistance on the right. All are infected with EFB. Photo by Ken Johnson, fungus *Anisogramma anomala*, is the major limiting factor of hazelnut (*Corylus avellana*) produ susceptible to EFB, a disease which causes stem cankers, branch die-back, and eventual tree Valley of Oregon, the location of commercial hazelnut production in the United States, since be Fortunately, significant progress has been made at Oregon State University (OSU), Corvallis, O blight (EFB), caused by *Anisogramma anomala*, is vital for sustainable production of European study, new hazelnut germplasm from the Russian Federation, Ukraine, and Poland (a total of 1 field conditions over at least five years in New Jersey. Plants were then rated for the presence of resistance to eastern filbert blight in hazelnuts from the Republic of Georgia.



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