

# improvement of hybrid hazelnuts grown in the Bas-St-Laurent for resistance to Eastern filbert blight

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Eastern filbert blight, a fungal disease caused by *Anisogramma anomala*, can decimate sensitive hazelnut trees within a few years. In Oregon and British Columbia, hazelnut groves have suffered major losses in recent decades. These days, genetic improvement programs for hybrid hazelnuts include the trait of resistance to Eastern blight to select the genomes best suited to resist the disease. Genetic improvement nonetheless presents a number of challenges, such as the life cycle of *A. anomala*, which includes an asymptomatic period of over a year, and genetic diversity, complicating the selection of resistant subjects. As part of a research project led by Biopterre and Cégep de La Pocatière, hazelnut tree seedlings were evaluated for their resistance using two genomic methods: genotyping hazelnut trees for genes for disease resistance, and early detection in hazelnut trees using a molecular tool following inoculation with the pathogen.

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