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Somatic Embryogenesis, a Tool for Accelerating the Selection and Deployment of Hybrids of Eastern White Pine (*Pinus strobus*) and Himalayan White Pine (*Pinus wallichiana*) Resistant to White Pine Blister Rust (*Cronartium ribicola*)

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White pine blister rust (*Cronartium ribicola* Fisch.) is an exotic pathogen that was accidentally introduced into North America in the early 20th century. The devastating effect that this pest has had on both naturally and artificially regenerated stands in eastern Canada is a significant obstacle to the re-establishment of the natural stands that once covered extensive areas. In spite of the significant improvements in growth and adaptation attained under Quebec's white pine (*Pinus strobus*) breeding program, efforts to increase the species' resistance to white pine blister rust were unsuccessful. The transfer of blister rust–resistant genes from other five-needle pine species is not new in Canada and Europe; a number of promising hybrids have already been developed through interspecies crosses. The most promising hybrids for eastern Canada are *P. strobus* L. crossed with *P. wallichiana* A. B. Jacks. In general, these hybrids together with F2 and F3 backcross hybrids exhibit satisfactory blister rust resistance, as shown in studies conducted in both Europe and Canada. However, the first-generation hybrids (F1) are not as well adapted and they remain susceptible to the harsh winter conditions in eastern Canada. Consequently, Quebec's program focuses on the production of F2 backcross hybrids and efforts are being devoted to increasing the native gene component and enhancing adaptability. The technique of somatic embryogenesis has sparked renewed interest in the selection of resistant hybrids since this approach offers high potential for large-scale multiplication and deployment. The embryogenic cell lines will make establishment of clonal tests possible and facilitate the selection of resistant, well-adapted clones. The improvements attained in seed production from F2 hybrids, together with the advances achieved with somatic embryogenesis, will be discussed.