SELFING AND PROVENANCE HYBRIDIZATION IN RED PINE

M. J. Holst¹ and D. P. Fowler²

The paper reports as the results of field testing (8-10 years old) of red pine (Pinus resinosa) selfings, provenance hybrids and their controls. After 9 years there was a significant (9%) depression in growth of progenies resulting from self pollination. Growth rate of interprovenance hybrids was in general intermediate between that of the parent provenances suggesting that the genetic system controlling growth is predominantly additive. The implications of these findings as they relate to improvement of red pine are discussed. Provenance hybridization is not a promising approach to improving red pine.

¹Research Scientist, Canadian Dept. of Fisheries and Forestry, Petawawa Forest Exp. Station, Chalk River, Ontario, Canada.

² Section Leader, Tree Biology, Canadian Dept. of Fisheries and Forestry, Maritimes Forestry Research Centre, Fredericton, New Brunswick, Canada.