

Swedish-Canadian Cooperative International Forest Research Project: A Species-Genotype-Environment-Interaction Trial

Forest Science Trail

Established 1986

Project Objectives

The objective of this cooperative Canadian and Swedish research project is to learn more about the introduction of species from one country to the other. Specifically, this research is designed to:

- Improve our understanding of the similarities and differences between lodgepole pine and Scots pine.
- Identify plus trees by identifying seedlots with superior growth and resistance to insects and disease
- Learn about the risks involved when transferring a crop tree to a new environment.



Did you know?

A plus tree is a tree that is unusually superior in some quality or qualities such as an exceptional growth or insect and disease resistance.

Project Description

- This project is comparing the performance and health of lodgepole pine (*Pinus contorta* var. *latifolia*), Scots pine (*Pinus sylvestris*) and Siberian larch (*Larix sibirica*) from a number of provenances.
- Measurements taken include tree species, survival, height, diameter, and resistance to insects and disease.
- Similar test sites were established in Sweden and at four other locations in Canada: Fort Nelson, Fort Saint John, Mackenzie and Fort Saint James.



Did you know?

At present 80 million lodgepole pine seedlings are planted every year in Sweden and over 300,000 hectares of lodgepole pine forest now exist. The lodgepole pine grown in Sweden originally came from seed collected in BC and Yukon.

Benefits of Research

Lodgepole pine, a tree originating from western parts of North America, is regarded as one of the most promising trees available for cultivation under intensive forest management. Commercial planting started in the early 70's. Large areas are also regenerated naturally. This species is not native to Sweden but it is rapidly gaining interest due to its outstanding performance there. The first large scale collections of lodgepole pine seed from western BC and the Yukon for use in Sweden commenced in 1963. From these collections, plus trees were identified by SCA, a major Swedish forest company. Swedish trials have shown that the survival, growth and health of lodgepole pine is superior to their native Scots pine. However, an element of uncertainty – primarily of a pathogenic nature – is always associated with the introduction of exotic species.

Project Collaborators

Faculty of Forestry, University of British Columbia
 Faculty of Forestry, Swedish University of Agricultural Sciences
 SCA SKOG AB, Sweden
 British Columbia Ministry of Forests
 Canadian Forest Service

Department of Indian and Northern Affairs, Forest Resources
 Government of Yukon, Forest Management Branch
 Balco Industries Ltd.
 British Columbia Forest Products Ltd.
 Canfor Corporation Ltd.

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RESEARCH FOREST

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