



Environmental forests beyond the Arctic treeline in Norway

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Abstract

Since 1984, seedlings of a number of hardy species and provenances were transplanted in small openings in a willow thicket at Vardø on the Arctic coast of Norway (70°N) both in provenance experiments with *Betula pubescens* var *tortuosa* and with Alaskan provenances of *Picea engelmannii*, *P. glauca*, *P. sitchensis*, *P. x lutzii*, as well as of *Abies lasiocarpa* and a northern Norwegian provenance *Picea abies*.

In 2000, after fifteen years of growth about 70% of the sheltered plantations survived, and the average tree height was then of the order of 1 meter, which was still mainly under the maximum snow cover. However, during some winters/springs the evergreen branches were somewhat damaged and partly turned brown. Most vigorous seemed to be some “blue” coloured northern Alaskan provenances of *Picea x lutzii* and *P. glauca*, while *Abies lasiocarpa* and *Larix siberica* seem to have a strong tendency to form several apical shoots