

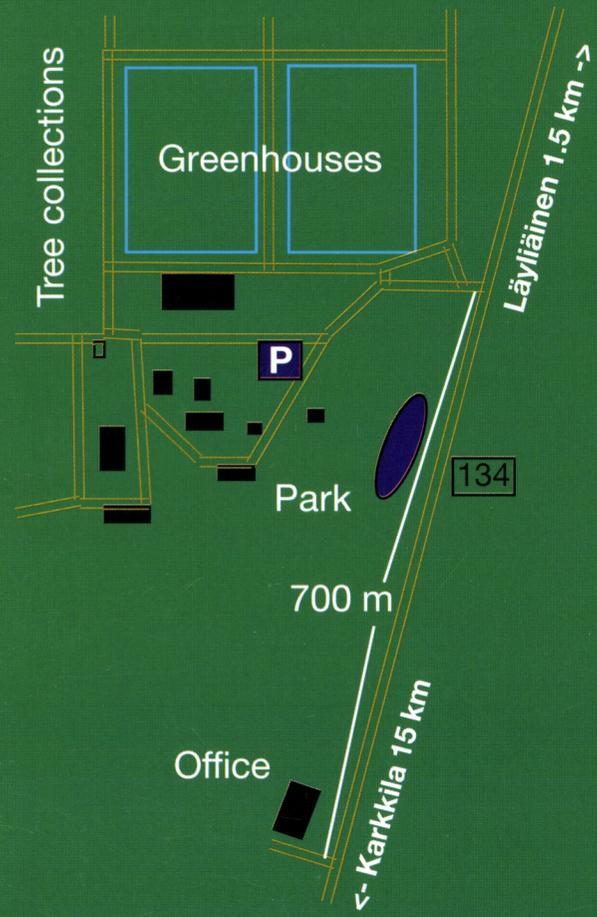


• Golden spruces and narrow-crowned spruces

Collection of Special Tree Forms

Right next to the breeding station there is a collection of special tree forms of indigenous tree species. The purpose of the collection, established in the 1960's, is to demonstrate the wide natural genetic variation in indigenous tree species. The collection includes trees planted by three former presidents of Finland, Urho Kekkonen, Mauno Koivisto and Martti Ahtisaari, who all visited the Station during their term's of office.

Several small experimental plantations and tree collections established to preserve the plus trees for future needs surround the station.



National Land Survey of Finland maps

HAAPASTENSYRJÄ TREE BREEDING STATION



Address: Karkkilantie 247
FIN-12600 Läyliäinen
Telephone: +358- 010 2111
Fax: +358- 010 211 2901
Homepage: www.metla.fi/

Picture on the cover: Birch seed orchard
Photographs: J.Napola and M.Ahqvist



• *Cut-leaved birch*

The Haapastensyrjä Tree Breeding Station

in Loppi, 65 kilometers north of Helsinki, is the center of the forest tree breeding activities in Finland. The station was established in 1960, and run by the Foundation for the Forest Tree Breeding until 1999. In 2000 the station, along with the breeding activities of the Foundation, was merged with the Finnish Forest Research Institute (Metla). The station is now administered from the Vantaa Research Centre of Metla.

The station employs a permanent staff of approximately 30 persons, 6 of which are researchers. During the summer season the number of staff working at the station is nearly doubled.

Traditional and new methods

The emphasis of the station's activities is on traditional long-term breeding as well as on the development of new breeding methods. The methods used in traditional breeding are plus tree selection, crossing, and progeny testing. The development work carried out at the station aims at accelerating breeding,

and enhancing seed production as well as developing more efficient methods of vegetative propagation.

One of the most significant accomplishments of the station's development work has been the production of birch seeds in greenhouses. Good examples of new breeding techniques are the stimulation of tree flowering using hormones and the micropropagation of aspen under laboratory conditions.



• *Crossing of spruce*

• *Pine grafts*



• *Micropropagated aspen plants*

Growth, quality and hardiness

The most important species being bred are the main indigenous tree species found in Finland: Scots pine, Norway spruce and birch. In addition, breeding to improve aspen, alder and larch is carried out. The breeding activities aim to improve tree growth, quality and hardiness.

Two hectares of greenhouses

The station's nursery area covers altogether 6 hectares, which includes 2 hectares of greenhouses. The largest greenhouses are 9 meters high and up to 100 meters long. They contain breeding orchards and birch seed orchards.

Some of the greenhouses are equipped with modern technology enabling automatic monitoring and regulation of the growth conditions. The newest research greenhouse is specially equipped to test the frost resistance of seedlings. There are also greenhouses particularly designed for rooting of cuttings, while others are used only in the summer for growing seedlings for field trials and grafts for seed orchards.