More high quality Norway spruce seed

The aim of the project is to improve the availability of high quality tree seed through the testing and development of different seed orchard management practices, including artificial flowering of grafts using gibberellic acid hormone (GA₄/7), root pruning and fertilization treatments as well as integrated pest management (IPM). In particular, the epidemiology of inland spruce cone rust will be investigated both experimentally and following natural rust sporulation in seed orchards to improve disease control. In the greenhouse and in the laboratory, the pathogenicity and virulence of the rust will be tested on test plants.

New application techniques for GA- hormones will also be tested, and old Norway spruce seed orchards will be examined in order to recover the seed production. Finally seed crop forecasts will be prepared and utilised in the management practices of seed orchards, e.g. cone collection, artificial flowering and IPM. The project is carried out together with forest tree seed producers Tapio and Siemen Forelia. Most of the testing will be carried out in seed orchards and seed extraction units of these seed producers. In addition, some testing will take place at Lukes Haapastensyrjä breeding station and Suonenjoki seed laboratory, as well as at the laboratory of the University of Oulu. The project is financed by Ministry of Agriculture and Forestry.