

# Slutrapport

**Projektrubrik:** Sycamore for wood production

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**Projektets löptid:** 2017-09-01 – 2020-08-31

## Populärvetenskaplig sammanfattning

A combined stand density and seed source experiment in sycamore was established at Tönnersjöheden Experimental Forest and Remningstorp Forest Estate. The primary objective of the experiment is to investigate the influence of stand density on the growth, stem quality and health of sycamore in Sweden. It includes three different plantings distances and two seed sources. The experiment is replicated in a complete randomized block design with three blocks on each site. Until canopy closure the experiment will be used to analyse the influence of original plant spacing on the development of sycamore. Subsequently, the experiment will be expanded to include different types of high-pruning and thinning. The experiment will be used for testing scientific hypotheses within the scope of the objective. Additional issues may be researched, and hypotheses may be tested, as long as these do not conflict with the primary objective of the experiment. The experiment will also be used to show forest managers, forest owners and others with an interest in forestry issues, how sycamore can be managed purposefully and what the consequences are of different management practices.

## Resultat

The main result of the project was the successful planting and installation of the combined stand density and seed source experiment in sycamore (cf. the 'popular' summary above). Due to the extreme drought in 2018 and lack of suitable planting material in that year, the planting was postponed to 2019. First- and second-year survival were very high (> 90%). Unfortunately, the blocks at Tönnersjöheden suffered from late frost in 2020, resulting in no or negative growth in that year (but little additional mortality, if any). First- and second-year height growth at Remningstorp was satisfactory and as expected. All results are summarized and commented in the enclosed report.

## Målbeskrivning

Due to drought, seedling availability and seedling costs the project was postponed for one year and the statistical design of the experiment was changed, resulting in two seed sources being planted at three planting distances and all replicated in a complete randomized block design in each of in three blocks on two sites. Due to covid-19 it was not considered safe to invite forestry professionals onto the areas in a field tour, but the experiment will surely serve for this purpose multiple times in the future. Other than these deviations the project was carried out as scheduled.

## Kommunikation och nyttiggörande av resultat

Due to covid-19 it was not considered safe to invite forestry professionals onto the areas in a field tour, but the experiment will surely serve for this purpose multiple times in the future. The enclosed establishment report is publicly available through SLU's library service and can be downloaded for free.