

Information about thinning demonstrating biofuel and Roundwood production

State	Latvija
Region	Ziemeļaustrumi, Vidzeme, Gulbenes nov. Rankas pag.
Stand ID	5084 008 0411
Thinning year/season	2020
Topic	Commercial thinning with chainsaws, mainly removing non-profitable trees. In the site, trees are cut in assortments.
Area (ha)	1.3
Age	26

Stand composition

Planted P stand, but in the codominant layer, it is possible to see E and B as well.

Terrain and soil conditions

Hylocomiosa

Soil is dry.

Location of the demo site

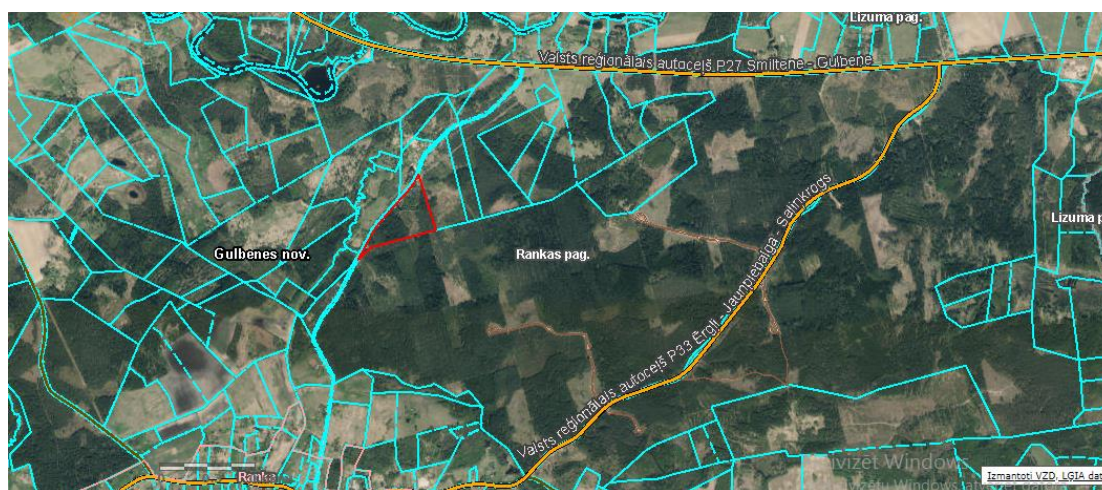


Photo: www.kadastrs.lv

Baltic ForBio



Photo: Google Maps

Stand characteristic before thinning

Average DBH (cm)	12
Average height (m)	10
Stand basal area (m ² /ha)	30
Standing volume (m ³ /ha ⁻¹)	233

Stand management targets

The main target of this forest stand is to get wood without many branches that provide a high quality of timber. Also, one of the targets is to increase pine tree diameter with age, which will make it possible to harvest the stand earlier.

Before commercial thinning was done, pruning about 75% from all pine stand when tree height was at 4 m and 3 m height for the other 25% of stand trees.

The decision about thinning was made to improve the condition of the forest stand, provide more space for dominant trees, and take out unpromising trees. Most of the assortments after commercial thinning was firewood.

Stand characteristic after thinning

Average DBH (cm)	13
Average height (m)	10
Stand basal area (m ² /ha)	25
Standing volume (m ³ /ha ⁻¹)	195

Demonstration site after thinning



Photo: D. Supe

Mechanical damages due to thinning

In the harvesting process, no damages have been found that will not impact future stands development and growth. Also, the harvesting process does not impact ground cover and left trees because of the technical solution working with a chainsaw. Assortment length was 60 cm for log, and after that, all of the logs were stacked on the site. Technical corridors were made carefully not to impact the topsoil.

Applied work method in thinning:

Commercial thinning is done with a hand-held chainsaw, such a technique is the most optimal option, as it causes less damage to the remaining trees and is the most economically advantageous. This method also provides to make decisions more carefully. Generally obtained 32 m³ of firewood un 6 m³ of tara.

After thinning, all logging residues have left in the forest stand as an additional nutrient for further stand development.

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