Information about Demonstration Sites and Demonstrations (Informatisoon harvendusraie ja harvendusraie langi kohta)

Country: Estonia
Demonstration Site ID: **Soo-otsa 75601:006:0020 subcompartment nr 4**

-   Area, ha – 4,2 ha
-   Tree species – birch, aspen, grey alder
-   Age, years – 17 years
-   Objectives of forest management - Cleaning (thinning) to improve lighting conditions
-   Soil conditions – wood sorrel site type
-   Terrain conditions – flat, sometimes too wet
-   Map with the forest stand - in the attachment

Stand Description Before Thinning on 2017:

-   Trees per ha –4000 trees/ha
-   Average dbh (arithmetic mean), cm – 8 cm
-   Tree height, m – 11 m
-   Volume per ha, m³ ha – 116 m³ ha
-   Pictures - in the attachment

Stand Description After Thinning on 2019 – 2020:

-   Trees per ha - 2400 trees/ha
-   Average dbh (arithmetic mean), cm – 9 cm
-   Tree height, m - 12 m
-   Volume per ha, m³ ha - 93 m³ ha
-   Pictures (remaining trees, damages to soil and trees if any) - in the attachment

Thinning Method (Harvendusraie meetod):

-   Description of Working Process - Tööprotsessi kirjeldus
-   Machines – Usewood miniharvester, 1,5 m wide, weighs 2,5 tonnes. It cuts trees with diameter max 25 cm and the average volume of a harvested tree is 0.015 – 0.03 m^3. There is no need for skidding roads in the young forest as the miniharvester is only 1,5 m wide. Normally 20% of forestland stays unused under the skidding roads. When comparing the miniharvester with brush saw/chainsaw operator then the main benefit for the miniharvester operator is that work doesn't depend of the weather. As machines are light weight, they can be transported on a car trailer. This minimizes transportation costs, as a truck is not needed. All machines have low fuel consumption.

- Productivity Harvesting, m³/h - average is 2 m³/h
- Fuel Consumption Harvesting, l/h - 1-2 l/h
- Productivity Forwarding, m³/h – 3 - 6 m³/h
- Fuel Consumption Forwarding, l/h – 1,5 - 3 l/h

Figure 1: Demonstration Site before Thinning

Figure 2: Demonstration Site after Thinning