SINGLE TREE SELECTION IS NOT DIMENSION CUTTING

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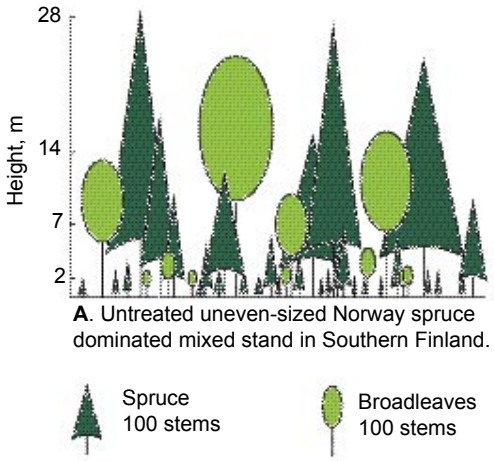
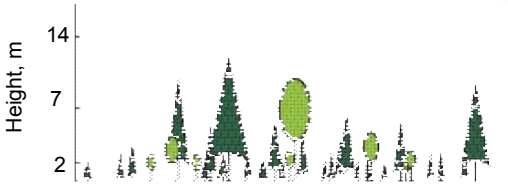
Uneven-sizedness in stand structure predominates

Dimension (diameter) cutting is often confused with selection felling. It is not a silvicultural method but a technical treatment only (based on minimum tree size and quality).



A. Untreated uneven-sized Norway spruce dominated mixed stand in Southern Finland.

Selection management (single tree selection) widens stem distribution and improves stand diversity.



Stand **A** after dimension (sawlog size) cutting.

Stand **A** after single tree selection

Stand parameters after dimension cutting (by Sarvas 1944) and after single tree selection (by the authors 1999) in Norway spruce-dominated stands in Southern Finland.

Cutting	Sample plot, no.	Volume, m^3ha^{-1}	Current annual increment, m^3ha^{-1}
Dimension	83	<120	3.4
cutting	11	>120	5.4
Single tree selection	46	77 - 190 - 344	2.5 - 5.1 - 7.8

If the stand structure is uneven-sized and undergrowth is rich dimension cutting is momentarily the most economical method. However, it has no consideration for biodiversity and multiple-use.

In contrast, single tree selection fulfill most aspects required by diversity-oriented silviculture.Additionally, selection system guarantees high sustainable yield and quality.

References:
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Lähde, E., Laiho, O. and Norokorpi, Y. 2001. Structure transformation and volume increment in Norway spruce-dominated forests following contresting silvicultural treatments. For. Ecol. Manage. 151: 133-138.