

Alpine-forest selection - an alternative to clear-cutting in uneven-aged Norway spruce (*Picea abies* (L.) Karst) forests?

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Abstract: Clear-cutting of forests is considered to be a serious problem for reindeer management. For uneven-aged Norway spruce forests, the alpine-forest selection or some other selection system could be an alternative to clear-cutting, and a way to combine forestry and reindeer management on the same area. The selection system is a silvicultural system which requires and maintains uneven aged full-storied forest which are cut through periodically, whereby a part of the growing stock is removed. With alpine-forest selection the interval between cuttings is usually 25-40 years, and more than half of the growing stock may be cut each time. The lost trees are replaced by ingrowth from below, which must be present in the stand before the cutting takes place. Preliminary studies indicate that after an alpine-forest selection the annual timber volume growth is proportional to the remaining growing stock, with a relative growth rate of approximately 3-4 % per year.

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