

RECOVERY OF NORWAY SPRUCE UNDERGROWTH AFTER LIBERATION

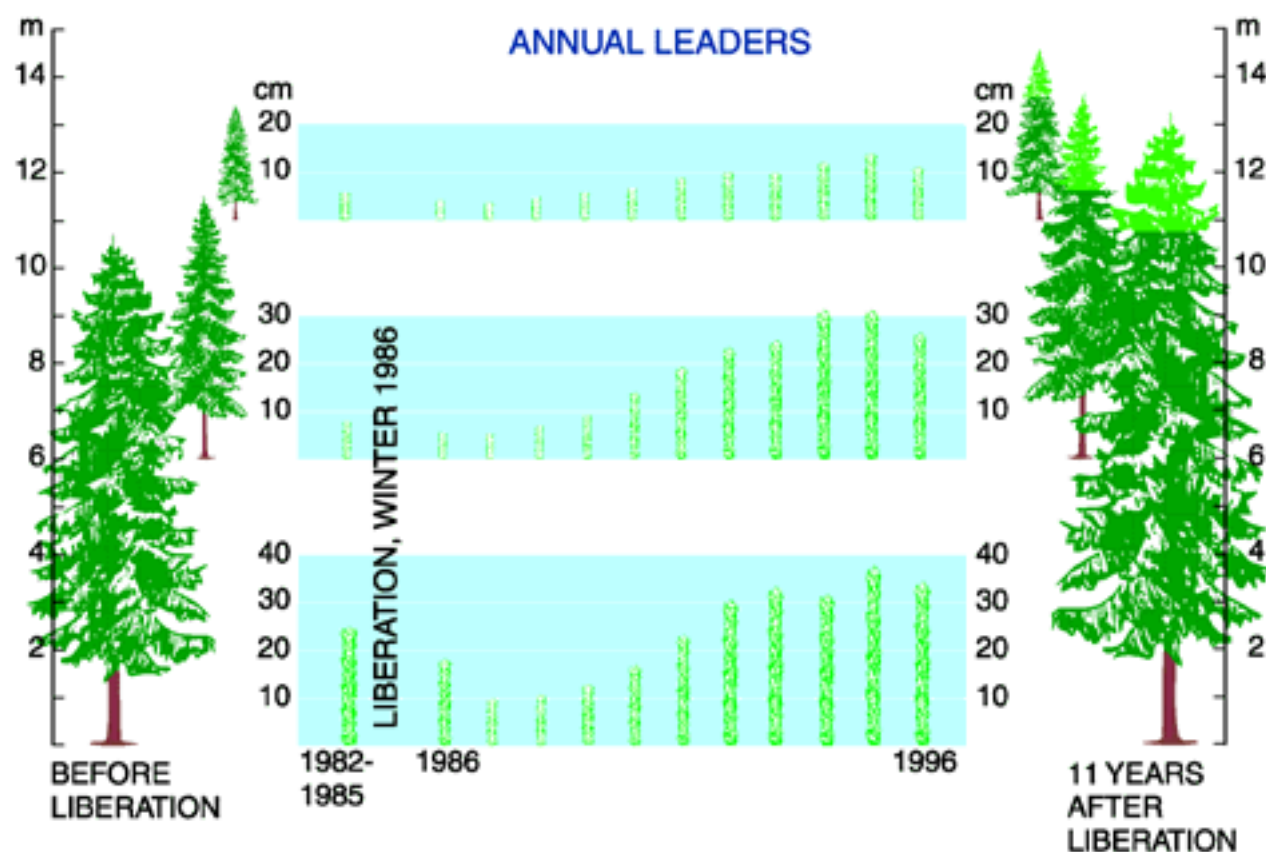
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INTRODUCTION

- Successful recovery of undergrowth after liberation cutting is regarded as one of the key questions in selection management.

MATERIAL AND METHODS

- In order to study the recovery, a continued structure spruce-dominated stand was cut removing all trees exceeding 9 cm at breast height. Growing stock after cutting 28 m³/ha, removal 207 m³/ha.
- After 11 years 128 spruce trees, sampled systematically to cover evenly the 2 to 14 meters height range, were felled and their growth reaction recorded.



RESULTS

- The three first leaders after liberation cutting averaged 60% of the height growth before it, and the next three and five years 102 and 193%, respectively.
- Small trees were fastest in recovery and gave the highest relative response.

Tall trees were slowest in recovery but their absolute height growth was highest.

CONCLUSIONS

- Norway spruce undergrowth has good potential to recover.
- Good quality timber with fairly even growth rate presupposes light or moderate cuttings and thus relatively short cutting intervals.