

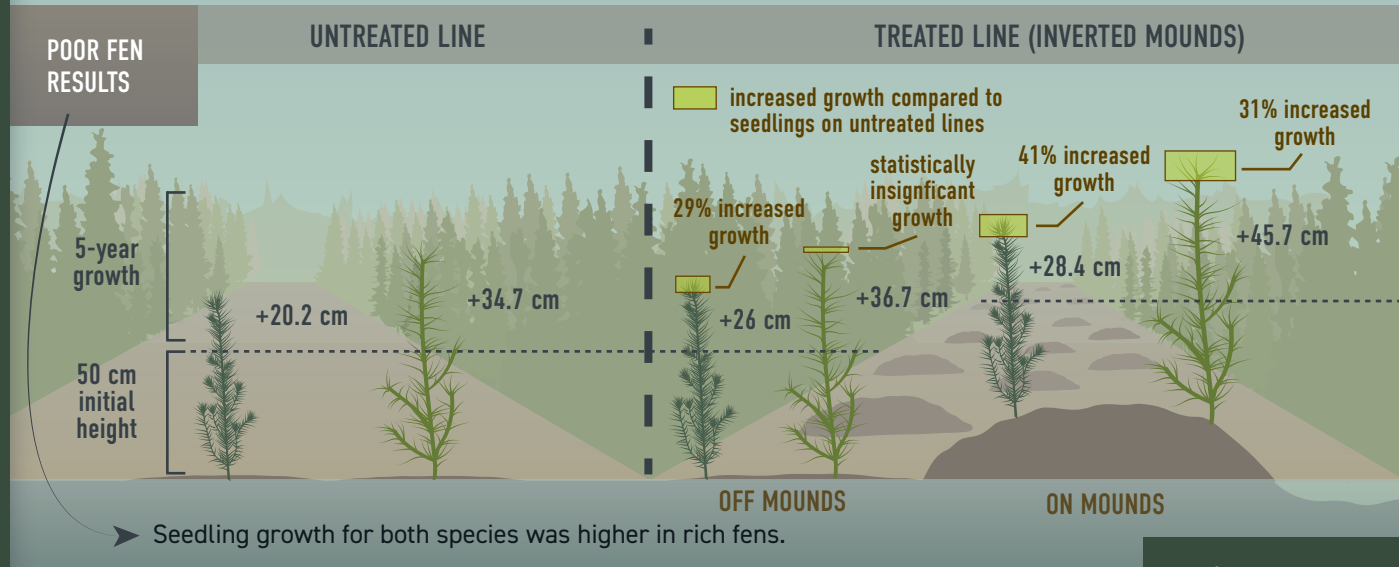
# Mounding improves seedling growth

Seismic lines disturb threatened woodland caribou habitat. When seismic lines are left to naturally regenerate, trees often struggle to grow back, especially in boreal peatlands due to compaction and loss of micro-sites.

Inverted mounding is an established technique used in forestry to enhance tree growth on wet and cool soils. While it is increasingly used to restore seismic lines, its effectiveness to improving seedling growth is largely untested there.

We studied the effect of mounding on black spruce and tamarack seedling growth on seismic lines in boreal treed fens in Alberta.

Overall, inverted mounding and tree planting improved early seedling growth over five years for black spruce and tamarack in both nutrient poor and rich treed fens.



Seedling growth depended on species, ecosite, initial seedling size, and light availability. Therefore, **site-specific prioritization of mounding may prove more efficient** than generic restoration prescriptions on seismic lines in peatlands.



**Restoration managers should consider a range of ecosystem values** (hydrology, carbon and methane cycling), continually looking for ways to improve practices, and consider other mounding techniques that are designed to preserve the peat profile.



SHELLIAN ET AL., 2024  
DOI:10.1111/REC.14086

INFOGRAPHIC BY FUSE CONSULTING