BCCFA 2025 Conference May 27 2025
Breakout Session: Innovative Silviculture Part 1: Practical Insights on Commercial Thinning

Session Description:
This session will facilitate knowledge exchange among managers on the implementation of innovative silviculture, including commercial and pre-commercial thinning, with a focus on practical, on-the-ground learnings. Experienced practitioners will share their insights, helping those with less experience or facing challenges in implementation. Join in a collaborative discussion on lessons learned and elements to consider for success. The session will begin with a provincial update on the work of the Commercial Thinning Steering Committee, providing valuable insights into current practices and emerging trends.

Speakers: Kevin Bollefer (Manager, Revelstoke Community Forest Corporation)
Sig Kemmler (Projects Manager, Integrated Operations Group)
Derek Lefler (Director, Forest Sciences, MOF)
Jordon Gabriel (Lead Forestry Technician, Spel'kumtn Community Forest; LFV)

Moderator: Dr. Kira Hoffman, Silviculture Innovation Program
Notes compiled by: Eden Hardcastle

Topics Discussed:
- Implementation of commercial thinning within the context of community forestry in both interior and coastal regions
- Challenges and benefits to implementation
- Specific learnings from projects
- Link to broader conference theme: commercial thinning is a silvicultural tool that aligns with multigenerational objectives and can help practitioners steward community forests for both ecological and economic benefits

Key Points:
- Commercial thinning can be used as a tool for practitioners to achieve a series of diverse economic and ecological objectives within a "full rotation management" perspective
- Commercial Thinning Steering Group is subdivided into a series of subgroups: Research (via UBC), Policy and Barriers, Volume to Value, and Guidance, to address the complex use of commercial thinning in modern forestry

    - Subgroups aim to integrate research with practice, analyze policy and barriers to implementation, determine where thinning can be used for economic value vs. other ecological services, and provide guidance for practitioners
- There are limitations to current stocking standards with regard to commercial thinning; this is currently being addressed by the Steering Group)
- Improved definitions will avoid a number of treatments being grouped into "thinning" (i.e. wildfire risk reduction); better definitions contribute to more clarity and better guidance for implementation
- BCTS pilot projects will aim to address barriers to implementation and connect research to practice
    - Support operational projects and ground-truth research data and theory
- Much of the research and implementation occurs in interior BC contexts, but significant precedence exists for success in coastal areas (i.e. Reserve land operated by Lil'wat Forestry Ventures)
- "If it's highgrading, it's not thinning: commercial thinning is thinning from below to make space for healthy trees"

Coastal Perspective

- Thinning has shown to improve the regeneration and vigour of culturally significant species such as soapberry, huckleberry, and pine mushroom
    - Cultural burning in conjunction with thinning yields positive results for understory species and can elicit efficiency in free-to-grow timelines
- Projects have featured thinning to 200 sph and retaining all deciduous trees to create a complex and varied stand structure for a number of ecological benefits, including wildlife corridors, cultural species habitat, and wildfire risk reduction
    - Resurgence of resource species for wildlife has the potential to reduce negative wildlife encounters in urban interface
- Thinning projects also created a source of firewood for the community (10,000 m^3) in addition to commercial products
- When faced with skepticism, in-situ block tours that demonstrated the success of the thinning projects provided educational opportunities and improved understanding for community members

Columbia-Shushwap Perspective

- Revelstoke Community Forest used commercial thinning to bridge the gap between age-class distribution throughout the TFL (plenty of young and old stands, but few in the middle)
- Example project: Keystone

    - Thinning to adjust species composition from Hw-leading to Cw-leading, decrease the rotation age, and increase volume at final harvest
    - Achieved good results in difficult terrain, which sets a good precedence for more complex sites and coastal applications
    - It is recommended that operators are given no more than 5 rules for efficiency and simplicity
- Adaptive prescriptions allow for learning in-situ and nuance in implementation
- Soil disturbance from thinning provided a good seed bed for natural and artificial regeneration
- Thinning during the self-thinning stage was implemented to reduce losses from mortality
- Training new operators and acquiring the right equipment can be a positive community investment and promote trusting relationships between forest managers and operators
- Marking trees can be used to reverse-engineer the prescription and provide a visual for the final product or desired outcome
- LiDAR is a powerful tool for analysis and monitoring

Operational Perspective

- Commercial thinning as a concept does not need to be in the "studying" phase anymore, there is empirical evidence and precedence for success in a wide variety of contexts
- Best management practices are fairly constant:
    - Prioritize removal of dead, diseased, and weak trees first,
    - Retain trees with 30-50% live crown,
    - Trial area should be less than 25% of prescription area
- Curving trails is necessary to avoid unnatural line-of-sight corridors for hunters and predators
- Commercial thinning projects displayed a significant difference in wildfire behaviour, even when adjacent to unthinned stands

Key answers from Q&A:

- Identify the market before implementation; thinning often produces shorter logs which may create issues for demand
- Highgrading is avoided in different ways depending on objectives (i.e. forest health vs. species composition)
- Windthrow can be mitigated by leaving a wind anchor (unthinned strip between thinned areas) perpendicular to prevailing wind direction

Resources:

Contact for the Intensive Silviculture Specialist and the Commercial Thinning Steering Committee: ThinningSupport@gov.bc.ca

Thinning guidance for BC: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stand-tending/thinning_guidance_for_bc_2025.pdf