

Accounting for bark when scanner scaling: methods and technologies

<https://library.fpinnovations.ca/en/permalink/fpipub3385>

Author: Dyson, Peter
 Date: October 2015
 Edition: 40056
 Material Type: Research report
 Physical Description: 11 p.
 Sector: Forest Operations
 Field: Fibre Supply
 Research Area: Forestry
 Subject: Bark
 Scaling
 Scanning
 Thickness
 FOP Technical Report
 FPI TR

Series Number: Technical Report ; TR 2015 n.37
 Language: English


Abstract: Forest companies across Canada are interested in using laser scanners for scaling logs because it has potential for reducing scaling costs. Scanning logs over bark requires a method to obtain the under-bark diameter in order to calculate the solid wood volume. This report evaluates the methods of applying a bark factor to determine under-bark diameter. It also identifies new scanner scaling technologies for measuring bark thickness.

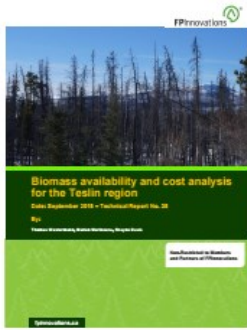
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Biomass availability and cost analysis for the Teslin region

<https://library.fpinnovations.ca/en/permalink/fpipub3414>

Author: Westermann, Thomas
Marinescu, Marian
Davis, Shayne

Date: September 2015

Edition: 40088

Material Type: Research report

Physical Description: 22 p.

Sector: Forest Operations

Field: Fibre Supply

Research Area: Forestry

Subject: Biomass
Bioenergy
Harvesting
Transport
FOP Technical Report
FPI TR

Series Number: Technical Report ; TR 2015 n.38

Language: English

Abstract:

This study addressed biomass availability, harvesting, transportation, and chipping costs for the production of bioenergy in the Teslin region of Yukon. It revealed that significant volumes of standing timber below 20 cm in diameter at breast height (DBH) exist that could be utilized for bioenergy. These volumes, however, would sustain only small electricity generation capacities; however, a more efficient solution would be to utilize the biomass in district heating applications. The study also estimated harvesting, transportation, and chipping costs of low- and high-mechanized systems. These costs will have to be further validated and incorporated into an investment calculator to assess the feasibility of future bioenergy projects in Teslin.

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Bonnes pratiques pour attirer et retenir le personnel des Opérations forestières

<https://library.fpinnovations.ca/en/permalink/fpipub3400>

Author: Gingras, Jean-François

Date: December 2015

Edition: 40071

Material Type: research report

Physical Description: 2 p.

Sector: Forest Operations

Field: Fibre Supply

Research Area: Forestry

Subject: Forestry

Work study

Series Number: InfoNote ; 2015 n.7

Language: French

Abstract: Attracting, retaining and training labor is a challenge for forest operations in North America. FPInnovations attended the Pacific Logging Congress (PLC) in November 2015 where one of the technical sessions focused on attracting and retaining people to the industry, in particular to contractor operations. The majority of the strategies presented in this Info-Note were suggested by logging contractors presenting at the PLC. A few others gleaned from other sources were added as well.

Abstract: Attirer, retenir et former la main-d'œuvre représentent des défis pour les opérations forestières d'Amérique du Nord. FPInnovations a assisté au Pacific Logging Congress (PLC) en novembre 2015, dont l'une des sessions portait sur les meilleures pratiques pour attirer et retenir les employés dans l'industrie, en particulier pour les entrepreneurs. La majorité des stratégies présentées ici ont été adoptées par les entrepreneurs forestiers qui faisaient une présentation au PLC. Nous en avons ajouté quelques autres obtenues d'ailleurs.

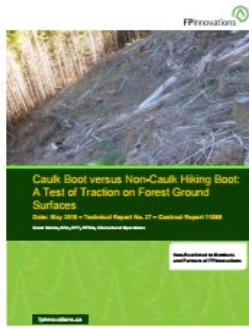
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Caulk boot versus non-caulk hiking boot: a test of traction on forest ground surfaces

<https://library.fpinnovations.ca/en/permalink/fpipub3388>

Author: Nishio, Grant
Date: October 2015
Edition: 40059
Material Type: Research report
Physical Description: 12 p.
Sector: Forest Operations
Field: Fibre Supply
Research Area: Forestry
Subject: Safety
Steep slopes
Site preparation
Silviculture
Tree planters
Injuries
FPITR

Series Number: Technical Report ; TR 2015 n.27

Language: English

Abstract: There is uncertainty regarding the effectiveness of using caulk boots vs. non-caulk hiking boots in silviculture work in the interior of British Columbia. WorkSafeBC regulation 8.23, states “caulked or other equally effective footwear must be worn by workers who are required to walk on logs, poles, pilings or other round timbers”, but does not specifically require caulk boots to be worn on steep slopes. Caulk boots are used almost exclusively by silviculture workers in coastal B.C. but are not commonly used in interior B.C. even though there are many situations where they may provide superior traction. Instead, workers in interior B.C. have a preference for non-caulk hiking boots. Workers will often select their boots based on personal preference rather than on information about the boot’s traction performance. Additional information regarding the differences in the traction of caulk boots and non-caulk hiking boots on various forest ground surfaces would help most workers make better-informed choices. Understanding the differences in traction is one of the most important factors when selecting a work boot in any situation and is especially true in the hazardous ground conditions of forest workers. For this reason, FPInnovations constructed a testing apparatus designed to measure and compare the static coefficient of friction of caulk boots and non-caulk hiking boots on four common types of ground cover surfaces in B.C. forests.

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Changement climatique et productivité forestière: une forêt de questions

<https://library.fpinnovations.ca/en/permalink/fpipub8328>

Author: Mercier, Guyta
Bernier, Pierre

Date: 2015

Material Type: Technical note

Physical Description: 2 p.

Sector: Forest Operations

Field: Fibre Supply

Research Area: Forestry

Subject: Growth
Climate
Fertilizers
Croissance des arbres
Productivité flux de carbone
Réchauffement
Zones climatiques
Fertilisant
Azote
Sécheresse
Feux de forêts
Maladie et insectes

Series Number: OT 218

Language: French

Abstract: Canadian Forest Service researchers are working to estimate forest productivity at different spatial scales. Variations in productivity are best appreciated at the tree and stand level in productivity.

Abstract: Les chercheurs du Service canadien des forêts travaillent à estimer la productivité forestière à différentes échelles spatiales. C'est à l'échelle de l'arbre et du peuplement que s'apprécient le mieux les variations dans la productivité.

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Économie de carburant et transport forestier

<https://library.fpinnovations.ca/en/permalink/fpipub8343>

Author: Mercier, Guyta
Date: 2015
Material Type: Technical note
Physical Description: 1 p.
Sector: Forest Operations
Field: Fibre Supply
Research Area: Forestry
Subject: Fuel consumption
Composites
Economie de carburant
Matériaux composites
Piquets et travers
Conducteur averti
Transmission automatisée
Modélisation aérodynamique
Pneus à large bande
Carburants alternatifs

Series Number: OT 194
Language: French

Abstract: Despite the oscillations in the price of fuel at the pump, it continues to rise. Five years ago, fuel accounted for 30% of transportation costs. Today, that proportion is estimated to be at least 40%, and the forecasts are not optimistic. It is therefore crucial to look at the factors that can influence fuel consumption and how to reduce it. The team of researchers from the Transportation and Energy program of FPInnovations program is working on this issue and is analyzing various possible solutions.

Abstract: Malgré les oscillations du prix du carburant à la pompe, ce dernier ne cesse d'augmenter. Il y a cinq ans, le carburant représentait 30% des coûts de transport. Aujourd'hui, cette proportion est estimée à au moins 40 %, et les prévisions ne sont pas optimistes. Il est donc crucial de regarder les facteurs qui peuvent influencer la consommation de carburant et les moyens de la réduire. L'équipe de chercheurs du programme Transport et Énergie de FPInnovations travaille sur la question et analyse différentes pistes de solutions.

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Effets à long terme de l'éclaircie précommerciale

<https://library.fpinnovations.ca/en/permalink/fpipub8338>

Author: Mercier, Guyta
Date: 2015
Material Type: Technical note
Physical Description: 2 p.
Sector: Forest Operations
Field: Fibre Supply
Research Area: Forestry

Subject: Commercial thinning
Wood properties
Fir
Harvest costs
Éclaircie précommerciale
Propriétés du bois
Sapin
Effets après 40 ans
Dispositif Rivière-Verte Nouveau-Brunswick
Résultats volume marchand
Age d'exploitabilité
Coûts d'exploitation
Qualité de la fibre
Pourridié et carie du pied

Series Number: OT 220

Language: French

Abstract: Several thousand hectares of non-commercial softwood forests are thinned each year in Eastern Canada. Although this intervention is justified by the logic of reducing competition between stems, thus favouring the growth of residual trees, few studies with quantitative data on the long-term effects of thinning of precommercial thinning (PCT) are available. How does this treatment actually influence tree growth? What are the long-term impacts on fiber quality and quality and value of the fiber?

Abstract: Plusieurs milliers d'hectares de forêts résineuses non commerciales sont éclaircis chaque année dans l'Est du Canada. Bien que cette intervention soit justifiée par la logique de diminuer la compétition entre les tiges, favorisant ainsi la croissance des arbres résiduels, peu d'études comportant des données quantitatives sur les effets à long terme de l'éclaircie précommerciale (EPC) sont disponibles. Comment ce traitement influence-t-il réellement la croissance des arbres? Quelles sont les incidences à long terme sur la qualité et la valeur de la fibre ?

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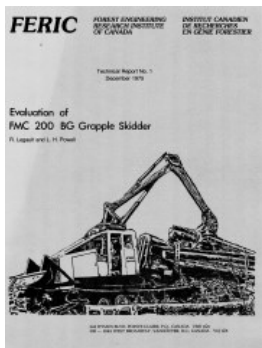


Et si on voulait accélérer la transformation de l'industrie forestière canadienne?

<https://library.fpinnovations.ca/en/permalink/fpipub53172>

Author: Levasseur, Jean-Francois
Contributor: NRCAN
Date: Décembre 2015
Material Type: Presentation
Physical Description: Video ; 1:30:22
Sector: Forest Operations
Field: Partnerships
Research Area: Forestry
Subject: PIF
Series Number: PIF ; 2015
Language: French
Abstract: A presentation by Jean Francois Levasseur for PIF (Partenariat Innovation Forêt)

Video Tracks



Evaluation of FMC BG grapple skidder

<https://library.fpinnovations.ca/en/permalink/fpipub43372>

Author: Powell, L.H.
Legault, R.

Date: 1975

Material Type: Research report

Physical Description: 23 p.

Sector: Forest Operations

Field: Fibre Supply

Research Area: Forestry

Subject: Skidders
Productivity


Language: English

Abstract: Ergonomic evaluation
COSTS
PRODUCTIVITY
SKIDDING
FMC 200BG grapple skidder
Tree-length systems
Soil disturbance
Machine evaluation
Clambunk skidders
SKIDDERS

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La Forêt Montmorency, 50 ans d'aménagement intégré et perspectives d'innovations

<https://library.fpinnovations.ca/en/permalink/fpipub53171>

Author: Sansregret, Hugues
Contributor: NRCAN - Université Laval
Date: Janvier 2015
Material Type: Presentation
Physical Description: Video ; 0 :55:09
Sector: Forest Operations
Field: Partnerships
Research Area: Forestry
Subject: PIF
Series Number: PIF ; 2015
Language: French
Abstract: A presentation by Hugues Sansregret for PIF (Partenariat Innovation Forêt)

Video Tracks
