



BCFSC training activity to date

In the December 2020 edition of Forest Safety News, we shared how Falling Supervisor training was successfully delivered during COVID-19. Since then, we have continued to provide training and have also successfully delivered:

- Incident Investigation in Campbell River, Kamloops and Prince George
- Four days of funded BCFSC Forest Supervisor Training delivered at various BC Colleges - Okanagan College (Salmon Arm), College of New Caledonia (Quesnel), Selkirk College (Castlegar)
- BCFSC delivered scheduled Forest Supervisor training in Campbell River, Kamloops and Prince George. Three requested sessions were also delivered in Nanaimo for Mosaic Forest Management

We also launched the new Resource Road Training Program. Approximately 110 participants enrolled and participated in various activities like the online knowledge unit, eight sessions of one-day, in-field safety training and three sessions of two-day, in-field driver training.

Year-to-date, five Basic Chainsaw Operator sessions have been delivered in Port Alberni, Campbell River and Salmon Arm. All these sessions were hosted by colleges including North Island College and Okanagan College.

With established COVID-19 safety measures for both in-classroom courses and outdoor in-field training, BCFSC ensures venues allow for safe physical distancing and health and safety information is shared, understood and adhered to by participants. Our trainers are also expected to demonstrate and encourage best practices throughout the course. We continue to monitor the provincial COVID-19 requirements and make adjustments as needed to ensure the safety of our students and trainers is maintained.

As we've all had to stick-handle through pandemic protocols over the past year, the BCFSC has also seen increased demand for online courses. In response, we have developed FREE online course options including the new occupational-based training for forestry workers, Forestry Safety Overview, Serious Incident and Fatality Investigation, Phase Congestion and more. Check out the [training calendar](#) on our website for upcoming courses or contact training@bcforestsafesafe.org for more information.

Incident Investigation	2021 Feb 26	Campbell River
Forest Supervisor Mod. 1	2021 Mar 9	Salmon Arm
Forest Supervisor Mod. 2	2021 Mar 11	Salmon Arm
Forest Supervisor Mod. 3	2021 Mar 12	Salmon Arm
Forest Supervisor Mod. 1	2021 Mar 16	Quesnel
Forest Supervisor Mod. 1	2021 Mar 18	Campbell River
Forest Supervisor Mod. 2	2021 Mar 18	Quesnel
Forest Supervisor Mod. 3	2021 Mar 19	Quesnel
Forest Supervisor Mod. 2	2021 Apr 8	Campbell River
Forest Supervisor Mod. 3	2021 Apr 9	Campbell River
Forest Supervisor Mod. 1	2021 Apr 15	Nanaimo
Incident Investigation	2021 Apr 23	Kamloops
Forest Supervisor Mod. 1	2021 May 6	Kamloops
Forest Supervisor Mod. 1	2021 May 11	Castlegar
Forest Supervisor Mod. 2	2021 May 13	Castlegar
Forest Supervisor Mod. 3	2021 May 14	Castlegar
Incident Investigation	2021 May 14	Prince George

Resource Road Safety Training

2021 Apr 12	Harrison Mills	(5104)
2021 Apr 13	Harrison Mills	(5104)
2021 Apr 19	Campbell River	(5104)
2021 Apr 22	Castlegar	(5104)
2021 Apr 26	Prince George	(5104)
2021 May 3	Princeton	(5104)
2021 May 9	Princeton	(5104)
2021 May 10	Princeton	(5104)

Resource Road Driver Training

2021 Apr 13	Squamish	(5105)
2021 Apr 22	Terrace	(5105)
2021 May 1	Rock Creek	(5105)

Basic Chainsaw Operator

2021 Mar 8	Campbell River	(5089)
2021 Mar 10	Campbell River	(5089)
2021 Mar 15	Port Alberni	(5089)
2021 Mar 17	Port Alberni	(5089)
2021 Mar 22	Salmon Arm	(5089)

Tree Planter Danger Tree Awareness training



Free online [Danger Tree Awareness Training](#) for tree planters is now available.

This interactive course helps planters recognize danger trees and understand what to do when there are danger trees nearby.

A big thank you to Blue Collar Silviculture for sharing this training with the planting community. 🌳

Entry Level Forest Worker training update

Over the years, employers have provided feedback indicating the challenges in finding the right employees to sustain their operations. To help meet the needs of industry, the BC Forest Safety Council (BCFSC) is coordinating a funded initiative from AEST to develop and deliver pilot training for workers new to BC forestry.

The Entry Level Forest Worker Training program is intended as a worker-readiness training program targeting new groups such as Indigenous Peoples, women, and high-school students for safe worker entry in the BC forest industry. Graduates arrive on the job with basic skills, a thorough knowledge of forestry and fully prepared for on-the-job learning in their chosen occupation. This program is designed to align with the occupational resources developed by BCFSC and employers can opt to continue their worker's training by utilizing the BCFSC on-the-job training and assessment materials at the worksite.

Status of Deliveries:

Okanagan College (Revelstoke) completed their pilot in 2019. Overcoming delays and challenges due to COVID-19, Selkirk College (Grand Forks) and CNC (Vanderhoof) finished their programs in December 2020.

Coast Mountain College (Terrace) started in March 2021 and is well underway. Program Coordinator Laurie-Lynn Kallio comments:

"This program is an amazing opportunity to educate and introduce forestry as a career to our students. We continue to try and implement experiential-placed based learning safely. Thus far, the activities have included a visit to Gruchy's Beach to view an old growth forest and a visit

to a local business which sells heavy duty equipment related to forestry and construction sites.

Guest speakers have included representatives from WorkSafeBC and the Ministry of Forests, Lands and Natural Resource Operations. Guest speakers scheduled for May include: two forestry consultants who will conduct GPS exercises with the students, another who will take students to view timber stands at various stages of growth, a Field Safety Advisor from BCFSC who will discuss safety issues, and a representative from WorkBC.

We hope to complete the following field visits to view a tree nursery and mill in Smithers, a community forest near Terrace and an interpretive trail to view old growth and bonsai type forests near Prince Rupert."

Instructor, Murray Sanders says the program *"allows entry level workers to enter the forest industry where they fit."*

Participants involved in Coast Mountain College's Entry Level Forest Worker Program have stated:

"Our society is based on our phones. There is no wifi connection in the forest but you will find a better connection – this program can help you connect your interest in the forestry community." – Pasha O.

"A good foundation into an entry level forestry position" – Zachary Price.

"Great introduction into forestry! I enjoyed learning about the environmental aspect of forestry.

Having family in this field fuels me to want to be better than them." – Faith N.

Employer partners with Coast Mountain College so far have included: D.R. Holtom Ltd., Inland Kenworth Truck Sales/Heavy Equipment Sales, Seaton Forest Products Ltd., Cypress Forest Products Ltd., Woodmere Nursery Ltd.

The pilot steering committee members at North Island College and Vancouver Island University (VIU) are also offering programs containing some or all of the Entry Level Forest Worker training materials.

North Island College recently delivered their Coastal Forest Worker Certificate Program to an indigenous cohort sponsored by the Homalco First Nation and WorkBC, as well as a tuition-based diploma cohort with both programs incorporating the Entry Level Forest Worker training materials.

VIU started their Fundamentals of Forest Harvesting Practices Certificate in March 2021 in Woss, BC supported by their industry partners, Western Forest Products and area contractors.

An evaluation of the results from all deliveries will be assessed and any adjustments to the materials and model will be made between May and Dec 2021. Stay tuned for program updates from the BCFSC in our upcoming Forest Safety Newsletters.

If you have any questions about the Entry Level Forest Worker Training Program, please contact Allison Thompson, BCFSC Manager Training & Standards. 🌲



Funding provided through the Canada-British Columbia Labour Market Development Agreement.

Know your four-wheel drive systems and how to use them correctly

Modern vehicles are the safest and most technologically advanced vehicles ever built. Beneath the surface lies mechanical and technology systems many of us take for granted or may not even be aware of. These common features give you the ability to negotiate resource roads more safely.

The key to getting these systems to perform properly when necessary is driver knowledge. You need to know what to use, when to use it, how to use it and why.

There are four common types of drivetrains in today's vehicles:

Two-wheel drive (2WD)

- Only one axle is driven by the engine and transmission, either rear- or front-wheel drive. Typically used for driving on paved roads and highways.

All-wheel drive (AWD)

- Both axles are driven by the engine, transmission and a transfer case. The ratio at which power is sent between axles may vary depending on the vehicle model.

Part-time four-wheel drive (4WD)

- Both axles can be driven by the engine, transmission and a transfer case. The vehicle has a two-wheel drive option, a four-wheel drive high-range option and four-wheel drive low-range option. This is one of the most common drivetrains and is found in almost all pickup trucks and SUV's.

Full-time four-wheel drive (4WD)

- Both axles are always driven by the engine, transmission and a transfer case. The vehicle has a four-wheel drive high-range option and four-wheel drive low-range option and is found in some SUV's and pickup trucks.

When to use 2WD, 4WD high-range or 4WD low-range

2WD

- Use 2WD if you are driving on dry pavement or a surface that has very good traction.

4WD high-range

- Use this range when you leave a paved road and travel on a resource road or when you are negotiating a lower traction surface.
- Most modern vehicles are designed to be driven for their entire lifespan in this mode if necessary.
- Using 4WD on a resource road or lower traction surfaces can provide more control, less tire spin, less wash-boarding of the road and more mechanical sympathy.

4WD low range

- Use this range when on steeper resource roads or when negotiating a lower traction surface on steeper terrain
- This range is used when you need more torque such as for towing or transporting heavier loads

- You use this range when you have to move slower for more control. For example, over rough obstacles.
- 4WD low-range should be applied prior to needing it and will not necessarily help you from freeing your vehicle if it's stuck.

Vehicle Safety Systems

Modern vehicles use an array of sensors and control modules to control certain functions. These sensors work together to determine what the vehicle is doing and what the user may require from the vehicle. For passenger vehicles, they are the heart of a vehicle's safety system.

ABS – Anti-Lock Braking System

A skidding tire has lost control and traction. Modern vehicles use four-wheel speed sensors that determine whether tires are losing traction and in the case of braking, skidding. ABS will only activate when the vehicle senses you applying the brake and any wheel starts to skid. The system allows a "pulsing" of individual brakes, allowing the skidding tires to roll again and regain traction before applying the brake again. This happens many times per second.

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Modern ABS systems will stop you 100% more quickly than any other braking system and will also allow you to steer, if necessary, while the ABS braking system is activated. This safety function automatically senses steering input and allowing the tires on the outside of the turn to roll a fraction quicker than those on the inside of the turn. However, this will increase your total stopping distance.

Traction Control

Traction control is that little orange light on the dash that shows the car with the squiggly lines underneath it. This system is often misunderstood and misused by drivers. Traction control is essentially the opposite of ABS braking. The vehicle senses the driver applying throttle (gas) and detects a spinning or skidding tire. The vehicle reacts by reducing the ability to apply throttle to slow the spinning tire so it can regain traction and control. In limited circumstances, tires spinning under throttle input may be beneficial such as in deep snow or mud where a slight tire spin allows inertia to keep the vehicle moving. This is why some vehicles have a button to reduce traction control input. However, other than deep snow or mud, in almost all circumstances, traction control should NOT be turned “off” as it greatly reduces your safety by allowing tire spin and can cause the vehicle to lose control.

Advanced Traction Control

Some modern vehicles have an advanced traction control system designed to help propel the vehicle when traction is lost. If your vehicle is equipped with this function, it is imperative to understand how it works and how to use it (professional driver training can help you learn how to utilize this great feature). The system is designed so that when the vehicle is losing traction while throttle is being applied, it will apply heavy braking to the wheels losing traction - redirecting torque to the wheels with good traction

and hopefully allowing your vehicle to correct itself and proceed safely. When this system is activated, its performance is limited so throttle control must be accurate and consistent.

Stability Control

Modern vehicles have pitch and yaw sensors and when combined with throttle input, the system can help control a vehicle in situations such as oversteering. When the vehicle's throttle is applied and there is excessive yaw or pitch, the system may momentarily remove the ability to apply throttle while also applying individual braking. This is the system trying to recentre the vehicle to correct the trajectory or maintain a straight path.

Locking Differentials

Some vehicles (particularly higher spec'd trucks) have the option of a locking rear differential. All 4WD vehicles have differentials on each axle allowing the wheels to be propelled, but also allowing each wheel to turn at a different speed to enable cornering. When cornering, each wheel needs to turn at a different speed as opposed to driving in a straight line when all wheels turn at the same speed. The challenge with a differential is they allow power to go to the path of least resistance. For example, if one rear wheel ends up on a slippery surface and throttle is applied, that tire may spin, and the vehicle may not be able to move forward. With a vehicle equipped with a locking differential, it can be activated so both wheels on that axle will turn at exactly at the same speed, no matter the traction difference between each wheel. This may allow forward progress.

Important information regarding locking differentials:

- They must be activated prior to needing them, not when stuck. They will often not engage once you are stuck. Good driver skill and knowledge is important.
- They must only be activated and used when driving in straight line (or

as straight as possible) as locking differentials cause increased mechanical strain to the vehicle.

- If the vehicle is equipped with both front and rear locking differentials, apply the rear first which will generally be sufficient.
- Never use locking differentials on surfaces with good traction such as paved roads.

Mechanical sympathy, terrain sympathy, smart driving

Whenever driving, the aim is to avoid tire spin or skidding. Maintaining control reduces wear and tear on your vehicle and reduces the impact on terrain. While modern technology systems help keep us safer, they are there to assist when needed and should not be relied upon to correct poor driving skills.

Durability

Vehicle durability can be challenging such as the ever-present Check Engine light, an ABS warning light and so on. Working in camp or driving a vehicle to and from remote areas can limit opportunities to fix minor mechanical problems. It is important to keep your vehicles well serviced to avoid break downs when working in the bush! Don't allow your vehicle to slip into a state of disrepair with inoperable safety functions. As soon as possible, have issues looked at and repaired.

Knowing your vehicle is key. Referring to the owner's manual is a good source of information to help you understand the features built into your vehicle. But knowing how to handle your vehicle and use it safely is essential. Train yourself and your workers. Enroll in the BCFSC's Resource Road Driver Training programs.

It is our duty to ourselves, our passengers and others out there on the roads to strive to be the best drivers we can be - armed with knowledge, skills and safety in mind. Always remember ... **Technique before Technology.** 🚗