

Newsletter

September 2nd, 2021



Enjoy your trees any seasons!

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AGM October 15th... At the Forest Interpretive Centre in Whitecourt

President's Report

by
Laval Bergeron

Hello everyone,

Wow summer gone again, nice hot one which I personally love although a bit on the dry side and way too smoky. Speaking of smoke, Monique and I traveled the country this summer camping from one place to the next and the smoke never left us. The only sad part of the trip. The rest was awesome. Lots of visiting which brought us to two very different Woodlots.

The first one our friends had just bought the place, the forest is different from here, different species and not as tall a forest and looked very healthy. The biggest difference being the forest floor, the duff or the O horizon, although being on solid rock it must have been 1-1/2' to 2' in thickness.

The second, they bought 5 acres of farmland 50 years ago and turned it into what I like to call it, a National Park. Very beautiful. Surprising what a tree can do in that time. Enough gossip now!

AGM. I don't recall how many times we went through to get a face to face AGM but this time it looks promising. Let's keep our fingers crossed, with Covid #'s on the rise again hard to say how it will be in a month and a half from now..

It is scheduled for October 15th, 2021 in Whitecourt at the Forest Interpretive Centre. Great place. There is room for two well behaved (haha) persons on the Board of Directors. (This is not meant to scare you away from the AGM.) Good place to have a say in the future of the Association and to meet folks that have the same interest as you do.

If by any chance you did not get your free WAA Gate sign when you became a member or would like to purchase one, we have them available at the AGM. We also have boundary signs that says « no trespassing » etc. available at \$25. They are made in the same format and look quite good with the gate sign. They could also be mailed but at a cost.

Hope you all have a good fall and that the weather cooperates for the AGM. See you there!

Annual General Meeting

October 15th 2021

Registration: 10:00am

Cost: \$25/person (includes lunch)

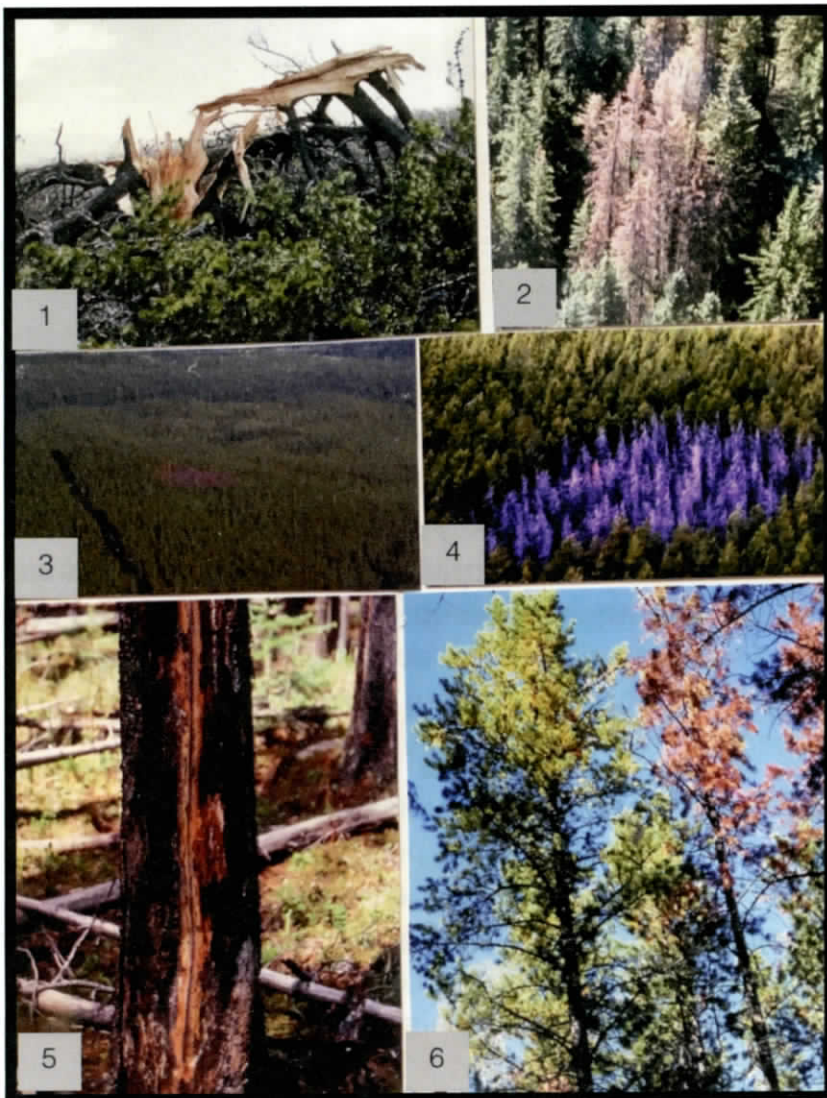
At the Forest Interpretive Centre in Whitecourt

3002-33st, Whitecourt, AB





Submitted by H. Cerezke



In Alberta, an average of about 330,00 « cloud-to-ground lightning strikes each year. Cloud-to-ground lightning is a major cause of human and animal fatalities and injuries, forest fires, property and infrastructure damage, and interruptions of damage to electrical power transmission and distribution systems. It has been estimated that these strikes ignite 45% of all wild fires in the province, and result in about 81% of total area burned each year. Most of the lightning strikes occur during the period from April to October. The strikes are recorded through the « Canadian Lightning Detection Network », established in 1998. Within the province, maximum flash density tends to occur over the Swan Hills area and in Foothills region. Relative maximum lightning strike occurrences occur during late afternoon and evening.

Two forms of lightning are generally recognized: « fork lightning », which passes between a cloud and the ground, and « sheet lightning », which occurs completely within the cloud. This report focuses only on fork lightning or cloud-to-ground lightning strikes because only these can cause the devastating effects on people, property and trees. Each strike may reach more than seven kilometers in length and produce temperatures greater than 50,000 degrees Fahrenheit, and have an electrical charge of 100 million volts.

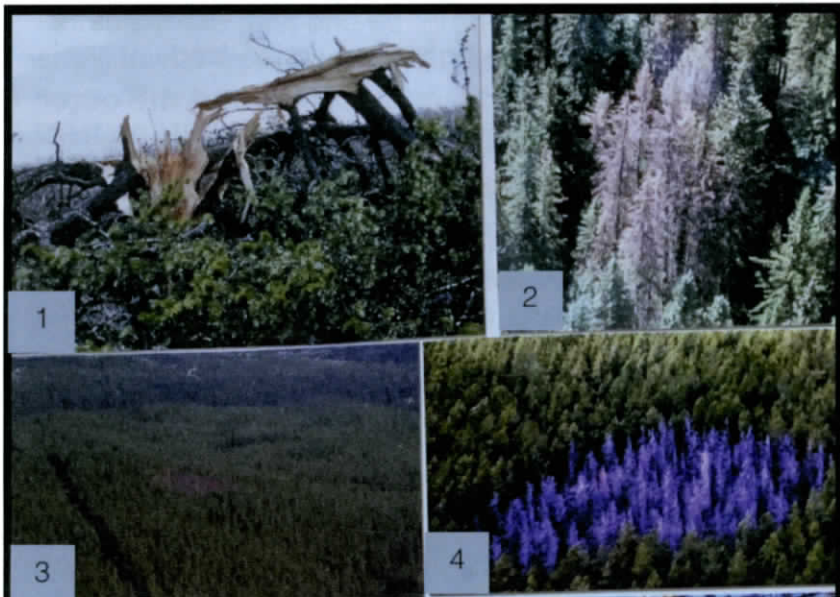
Thunder clouds appear to be charged with positive electricity at the top, with negative charge at the bottom, and often another smaller region of positive charge at the very base of the cloud. The source of these charges is believed to be due to precipitation and air currents. Often during a thunder storm there exists a great difference in electrical potential between the earth and the air. A lightning discharge from cloud-to-ground is initiated by enormous differences of electrical potential between earth and cloud. The lightning stroke to the ground may begin as a local discharge between the negatively charged region and small positive charge at the cloud base. A conductive channel forms toward the ground in successive steps (referred to as a « stepped leader »), giving the lightning its apparent zig-zag appearance. The negative charge moves continuously toward the ground, rapidly extending an electrically conductive path, along which a return stroke can travel. This is a discharge which travels upward from the earth, usually from a high point such as hilltop, buildings or trees. The stepped leader rapidly enhances the positive charge on the surface as it approaches the ground so that when the two charges meet a conducting channel to earth is established which lights up brilliantly as a result of the return stroke. This is the lightning flash we see as it moves upward at up to half the speed of light. Thunder sound results from the passage of the return stroke, due to the enormous surge of current and production of great heat. This increases the air pressure in the channel, allowing it to expand with supersonic speed to produce the shock wave which we hear as thunder.

While thunder storms are common throughout the province, the highest spatial distribution of strikes typically occurs in the western part of the province, being influenced by topography, vegetation, elevation and latitude. In forested areas, often the tallest trees in a stand, trees in open areas, trees in a hilltop, trees at the edge of a stand, and trees located close to buildings are all likely points of discharge for lightning strikes. Tree species commonly struck by lightning include pine, spruce, fir and poplars, while birch appears to be rarely struck. During thunder showers, tree stems may become thoroughly wet and are less susceptible to lightning strikes, due to the better electrical conducting stem surface. Also, trees with smooth bark tend to be more immune, compared to rough-bark trees. This may be because smooth-bark surfaces can become more thoroughly wet.

The damage to trees by lightning can vary widely, from no visible signs of damage to total tree destruction. Often light damage in the form of cracking or peeling of the bark of the main stem can occur, while greatest damage may occur on the root system. Leaves on deciduous trees may wilt immediately due to the heat from the lightning bolt. On other occasions, branches may be cut off, tree trunk may be split open, or the entire tree may explode or burn.

The physiology of the tree appears to have a direct influence on lightning effects. Lightning may follow a spiral path down the stem, following the grain of the wood, while at other times it may travel through the cambial zone, burning a small channel down the trunk. Trees with a high resin content or trees that sustain a high water content of wood, such as pine, spruce or fir species, provide enhanced electrical conductivity and therefore may be more susceptible to internal heating and explosion. The amount of current or voltage in a lightning bolt may vary widely and will directly affect the amount of damage. The higher voltage, the more heat it generates, thus increasing its destructive potential. The lightning discharge may disperse so as to cause no visible signs of injury to a tree, but an area of the cambium may be killed and result in girdling and eventual death of the tree several days, weeks or months later.

On a global scale, it has been stated that thousands of trees are killed each day by lightning



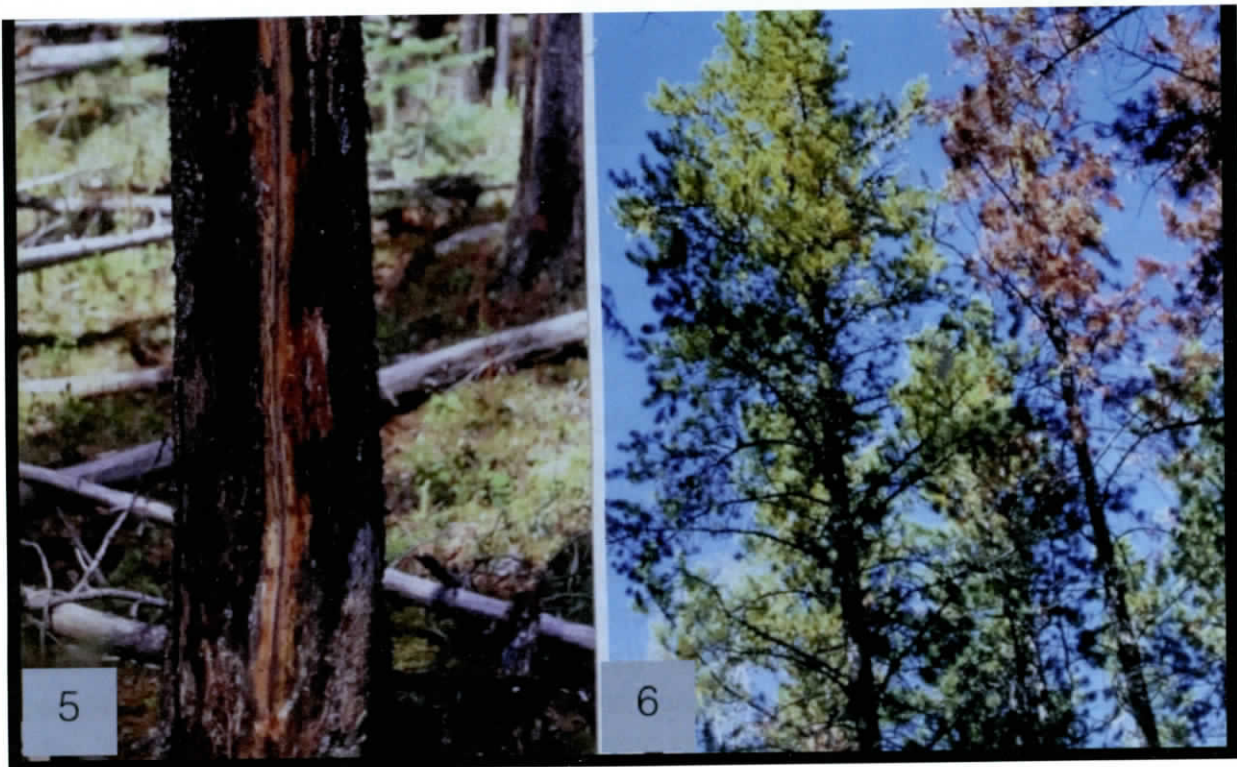
strikes. In Alberta, as already indicated, lightning strikes are responsible for igniting 45% of reported wildfires. However, many lightning strikes kill trees without igniting forest fires as indicated in figures 1,2,3 and 4. Tree mortality may occur as a single tree (fig 1), as small groups of two or more trees (fig2), and also of much larger groups of trees (fig3 and 4). Figure 1 shows a single open-grown mature lodgepole pine tree growing on a flat terrain in the Cypress Hills. The tree was struck by lightning which caused the entire stem to explode.

In Figure 2, a small cluster of about eight mature white spruce were killed near Grande Prairie. This cluster of dead trees was growing near the margin of the stand, and when examined from the ground, one of the more dominant trees in the group showed a typical vertical scar and split in the bark and sapwood that extended several meters up the stem. There was also evidence of considerable bark scales removed at the tree base.

During 1977 to 1981, nine other sites of lightning-caused group tree mortality were investigated. One site occurred about 25 km north of Hinton, while the remainder were west and south of Rocky Mountain House. All nine sites were in stands of mature lodgepole pine. Most of the sites were of fairly recent lightning origin and were specifically examined to determine the cause of tree mortality and to verify whether the mountain pine beetle may have been responsible for killing the trees. The number of trees involved at each site was mostly in the range of 40 to 50 killed trees, except for two sites which had respectively, 110 and 123 killed trees. Mountain pine beetle was not found at any of the sites, however on

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some recently killed trees, three different secondary bark beetle species were found, indicating that they were attracted after the trees had been killed. Figures 3 and 4 illustrate two of the sites as viewed from the air; Fig 3 with trees still having needles present and rust colored, and Fig 4 indicates a site with trees killed five or more years earlier as judged by their grey crowns. Most group tree mortality sites appear circular in shape, and often, though not always, a single dominant tree near the central of the site will show evidence of the lightning strike. Figure 5 shows a typical vertical split in the bark and sapwood extending up the stem that was observed on one of the dominant central trees. A blackened or charred scar extends adjacent to the crack in the wood, indicating the effect of the high heat generated during the strike. There is also a considerable amount of bark flakes blown off adjacent to the wound. In all cases, the trees are believed to have been all killed at the same time, although the mechanism as to how this happens is not understood. Interestingly, some smaller tree species such as willow and black spruce growing well below the main canopy within the circular patch of dead pine were not affected by the lightning bolt. However, in two of the larger pine-killed sites in which the lightning strike had occurred no more that two years earlier, there were still several trees dying around the outer perimeter of the dead trees (Fig 6). This indicates that these trees were weakened sufficiently at the time of the strike and continued to decline slowly thereafter. The lightning-killed trees can attract a number of bark and wood borer species including the mountain pine beetle. This emphasizes the importance of verifying the cause of tree death, since in the case of the mountain pine beetle, new infestations may sometimes be traced back to sites of lightning-killed trees.



Opinion

Protect the Woodlot

By Jurgen Moll

This has been quite the weather for the past year for the western half of North America. It started last winter with little snow fall, that resulted in all most no spring-runoff, fallowed by only showers of

rain and heat like plus 30 for days. This has been hard on the farming community poor crops, less hay and no grazing. The one good thing that happened was that there was less lightnings and fires in Alberta, but this was not the case in southern British Columbia which may have had the worst fire season in the past one hundred years. Some 500-600 people died of the extreme heat and several small towns were burnt, the smoke was so bad that people were advised not to go outside for some days. There were also some large fires in Saskatchewan, Manitoba and Ontario and many in the western USA. these are all caused by the drought that we are experimenting now.

The scientific community tell us that it is caused by our excessive use of carbon fuels and we must change to a greener energy source. This of course is still a theory that tells us that conditions will worsen if we continue as we are doing now. That world could become uninhabitable for people in the future.

Everyone of us must decide if we believe that the theory is right or not but both should look into the past as to what droughts happened a life time ago and there were others further back than 90years ago. We have heard about the hungry 30's when crops failed, livestock died, dust storms and a migration of people from the dried out prairies, this was a drought that lasted for some years. This drought not only caused agriculture to fail, but it caused large areas of Alberta's forest land to burn. Way Alberta experiences such large areas to be burned in one fire is that our forest are on flat land which allows fires to run for miles whereas in mountainous areas they do not travel such long distances because a fire runs up a mountain side very fast but stops at the top and waits till sparks from the fire blow over the mountain and start the fire to run up the other side of the mountain and carry through the next valley.

In B. C. they had some fires in excess of 80,000 acres this is like 3.5 townships which took several weeks to reach this size, whereas in 1996 north of Whitecourt there was a fire of 400,000 acres this covered an area of some 17 townships (*a township is 6 miles square*) this fire was about 40 miles long and only took two days to get there. In the 1980's there were some fires in the far northern part of Alberta that were over 1,000,000 acres.

Now this is not to recite something many of you already know but to give you something to think about when you as a woodlot owner, what can you do to protect your woodlots from forest fires, because forest fires are a real constant and the greatest danger to a woodlot, there always be forest fires.

There are somethings you can do should a fire get started in your woodlots or adjacent to it. These are, make a fire control plan, which will:

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- ◆ Developing a road/trail system to access most parts of the woodlot.
- ◆ Make the main road wide enough for a 4x4 and trails for a quad.
- ◆ If there is a creek in the woodlot develop a crossing or a bridge.
- ◆ Develop access water point.
- ◆ If there is no water on the woodlot put in some small dugouts..
- ◆ If you log some part of the woodlot encourage the establishment of more deciduous trees, ie. aspen or birch. Not only conifer because the deciduous will not carry fire in the tree tops, this will slow the fire down.
- ◆ Sign trails to water for use by fire pumps.
- ◆ Develop a map of your woodlot showing roads/trails, water sources. Have a few extra maps on hand to hand out to a fire crew that may work on your fire.
- ◆ If you live on your woodlot think of developing a sprinkler system around your homesite, that is if you have a good water source available. The pump to pump the water should be gas driven not electric as you could loose your power in a fire. Some people place some of the sprinklers on the top of their house.
- ◆ Have some hand tools i.e. shovels, Pulaski, waterbed c/w hand pump, available at points of easy access in case of fire.
- ◆ If your woodlot has problem with cell-phone access but there are places where access is obtained, place a sign saying « Cell phone access ».

Not all of these ideas would work on any woodlots, but some may if implemented well save your woodlots from destruction.

Drought damage on your woodlot...

By Bob Cameron

Trees should respond next year with a large cone crop providing lots of opportunity for natural regeneration, if we get out and «Scuff the Duff ».

BC fires will put a further premium on nursery space.

Taste of the woods...

by Julien Schnegg

Finally, we do some meat!!!

Hello Everyone. Hope you had a good summer. I have a sad story. I was so busy this summer I did not have a chance to go up to my woodlot. Shame on me! On an other note we will do some game meat today. In my woodlot we have a lot of different wildlife: Black bear, whitetail deer, moose and now elk from the last few years.

When I was younger I was going hunting with some hunters from my village, always like to be around this community. I am not a hunter yet but hope to be

later. I am like everyone I need time. Sometimes I receive some meat from some hunters and it's always fun to cook with it. For this one we will freestyle more. No measurement. It's all about feeling, taste and experiment. This is how to cook, let the creativity go out. I did this recipe before of course and it's pretty simple just to reassure you.

Let's base this recipe with venison filet

Venison filet à l'orange:

We need for 2 peoples 400 gr of meat.

Try to take the best part like the tenderloin (you can use moose, whitetail, ...).

Orange 1 or 2 depending on how flavourful you want it.

Grand Marnier

Honey

Butter

Salt, pepper

Canola oil

Branch of thyme



Let's first take the meat and dry it with a paper towel. Season with salt and pepper. Let it sit on the counter to come at room temperature for a bit just the time we prep the ingredients for the sauce. Zest the orange, press the orange, cut a bit of butter.

In a hot frying pan put a bit of canola oil, make sure it's warm. Sear the meat on both sides (1 m 30 sec each side give or take). Cook for a perfect medium temperature 140-145 F or 60-63 C internal temperature. Remove the meat from the frying pan, put in a plate and let it rest for 5 min covered with a bit of aluminum foil. Discard excess of oil. Turn heat down to medium low, deglacer with orange juice and Grand Marnier. When it reduces add orange zest and 1 or 2 spoon of honey, salt and pepper with the branch of thyme. Let it reduce until it's like a syrup. Turn the stove off and add a bit of butter and stir continuously until it's incorporated.

Slice your meat and a bit of quarter of orange and pour your sauce on top. You can serve this meal with the mushroom anarchic or the wild garlic pesto and of course a glass of hibiscatoon mead.

If you have any questions or request you can email me : cuisto04@bluewin.ch.

Julien

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If you have a woodlot or want to stay informed on issues about your woodlot like trees health, bug invasions, lumber, benefits of mus eg, etc. Or if you simply want to support our association because this is a good cause, Please fill the form below and send it to:

WAA

Olson Office Management

Box 303, Beaverlodge, AB

T0H-0C0

Yes! I want to join the Woodlot Association of Alberta.

Name _____

Mailing Mailing _____

Town/City _____

Province _____ Postal Code _____

Legal Land Description _____

Phone _____

_____ email _____

Membership

1 Yr: \$30

2Yrs: \$50

Sustaining: \$ _____

Or

If you would like to offer to a friend, neighbour, or relative that are interested in topics mentioned above, please fill the form below and send it to WAA at the address above and we will send your candidate a certificate in your name that he/she is a member of the WAA for one year.

I _____ would like to buy a one year membership to the Woodlot Association of Alberta as a gift at the amount of: \$25

For: Mr/Mrs _____

Mailing Address _____

Town/City _____

Province _____ Postal Code _____

Signature: _____

Classified Ads

Free to all members

SOIL DAMAGE AUDITS

Precise measurement of soil change from disturbance:

- Volume/depth
- Texture/structure
- Compaction/density
- Chemical (salt, pH, organic matter)
- Hydraulics/water flow
- Drainage/erosion
- Stones and gravels
- Land capability

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A soil damage audit provides a higher standard of evidence.

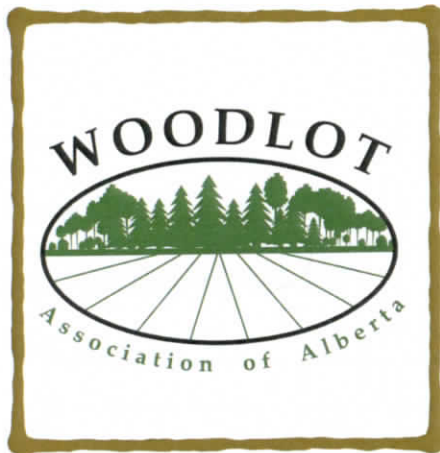
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Our Mission Statement

The Woodlot Association of Alberta's purpose is to promote leadership in sustainable forest management by encouraging the development of Private forest by increasing awareness of their inherent social, economic and environmental values.

Annual General Meeting

October 15th, 2021

Registration: 10:00 am

Cost: \$25/person (includes lunch)

At the Forest Interpretive Centre in Whitecourt

3002-33st, Whitecourt, AB



Address of Beaverlodge office for renewal

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T0H-0C0

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jess@olsonsbookkeeping.ca

tel:

1-800-871-5680

Web:

www.woodlot.org