



March 2nd, 2022

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Robert Cameron Debolt (780)957-2292

southpeace@hotmail.com

Edmonton (780)434-0512

Gordon Kerr

eelk@telusplanet Bluesky (780)596-3845 Elton Kauffman

gordonkerr@shaw.ca

Beaverlodge (780)518-1560

cathy@nextgenreforestation.ca

Cathy Newhook

Edmonton (780)849-8818 Tara Jamison Linda Nagge ara@carsonintegrated.com

GP County(780) 538-0823 Jim Szpajcher indanagge@gmail.com

Rick Keillor Berwyn (780)597-2136 mudman1@telus.net (780)645-5511

Sturgeon (780)939-2995 Brian Mullen (secretary

opmullen@hotmail.ca

keillor@abnorth.com

Laval Bergeron (pres) St-Isidore (780)618-6014)

aval@bergeronetfils.farm

**Board of Directors** 

Larry Nofziger (vice) Elmworth (780)354-2710

larrynofziger@gmail.com

# President's Report by Laval Bergeron

Hello everyone,

Hello everyone, On February 5th at -25C we received 12 inches of snow. A rare occasion! It was immediately followed by a chinook up to +5C with very strong wind overnight. Next morning I set out to groom the xcski trails only to find out that the Landmark Tree standing at the Y of the trail had fallen.. a very sad moment. I continued with the groomer and when the trail comes out on the field for a little, what I saw there was totally spectacular, snow rollers, all over, up to 11 inches in diameter created by the strong wind and perfect condition for such a spectacle.

I regained my good humour.

Thank you to everyone that participated with articles and what not in this issue of the newsletter/Logjam, and special thanks to the Vice President, Larry Nofzigger for such kind words. Really appreciated!

We have decided to actively pursue a collaborative working relationship with AWES »Agroforestry & Woodlot Extension Society ». Benefits of working together are,

- 2Billion tree program apply as a coalition for this 5 yr program
- Cooperative management
- Write grants together for future project
- Work together with the Federal Gov't and Gov't of Alberta
- Training and education seminars

We already have representation on Awes Board of directors and in turn they will sit on ours also.

The AGM is coming fast, I know it's still snowing but.. it will be held on June 10th in Whitecourt.

# AGM-AGM-AGM-AGM-AGM-AGM-AGM-AGM

Date: June 10th

Time: 10:30am - 4:00 pm

Where: Forest Interpretive Center in Whitecourt



### Vice President' Report. Feb 2022

The WAA is fortunate to have Laval and Monique Bergeron editing our quarterly magazine the "LogJam". Readers will remember when the Log Jam suddenly went to a one page letter a couple years ago when Jurgen retired from being editor. But do you know why it's been improving and growing in length ever since? It's because of Monique and Laval, so again, "I say thank you".

You took on the editing job because you didn't want the Log Jam to die, kind of like how you volunteered to be president for another year at last years AGM because no other member of the new board would take the job. That's also how it was seven or eight years ago, when Laval and I were new board members and he took over presidency because no one else would. Thanks for doing that too, Laval, you are our 2022 volunteer of the year.

Maybe it's like Gord Kerr said at our last board meeting, "I've been here since the beginning, so no sense quitting now".

At the last several board meetings, Laval has been asking us to submit content to be printed in the Log Jam. This could be pictures, articles, poems, whatever. The December 2021 issue had 16 pages of interesting reading, with articles by Jurgen Moll, Herb Cerezke, Ivan Whitson, Julien Schnegg, plus Laval's own presidents report. Thanks folks. That made for some great reading and also prompted me to contribute something, namely this article. I don't have a photo of Monique and Laval to accompany this writing, so I'll ask Monique to find a good one of them and insert it here before she sends it off to be printed.

The WAA is a small organization with less than 200 members. The Log Jam is our publication that connects us with each other, but it has been without the My Woodlot feature since Jurgen quit begging us for submissions. That was the page I usually read first, (sorry, Laval, not the presidents report) and miss it the most. It is a great way for WAA members to get to know each other and share information. Who will be the next member to submit their own Woodlot story? For those of us who have written about our woodlot in the past, we could call it "My Woodlot update".

I'll try to write something like that for a future issue. I'd like to encourage other members to consider contributing something (anything of interest) to help Laval Monique as they continue to improve our little magazine. Let's be creative. How about writing a story about a trip you took, or some insightful quotes from your grandkids, or just pictures of trees that are special to you? We could dig out some favorite article from past issues that we feel worth reprinting. Actually Gord could have his own humour page, just using the jokes and quotes that he finds in cyberspace and passes along to some of us via email. I call them "Gordy's Guffaw's", and yes Gordon, I enjoy most of them and just delete the rest.

Thank you one more time, Laval and Monique, for being part of the WAA, and for taking on the editing of the Log Jam. And just thanks to all the WAA members, for just being members, paying the dues, and thanks in advance for contributing to our little Log Jam!

Later, Larry



#### Operations · Safety · Environmental

### Introduction to Carbon Markets

Historically, private woodlot owners only had one way to generate revenue from the timber on their land: to sell it to the local mill. Recently, a new opportunity has arisen; carbon markets. A carbon market is where carbon credits (each equal to one metric tonne of CO2e) are bought and sold to reduce greenhouse gas emissions and increase carbon storage. Forest carbon protocols have recently been developed that allow private woodlot owners to sell carbon credits in the marketplace. There are two types of markets that woodlot owners may participate in:

**Voluntary markets** are open to all. Buyers are not legally required to participate and are typically offsetting their greenhouse gas emissions as part of their corporate social responsibilities. These markets usually yield a lower price per credit sold but landowners who wish to sell carbon credits have fewer long-term monitoring requirements.

**Compliance markets** are restricted to companies legally required to offset their emissions. These regulated markets are much more stringent over the supply, demand, and price of the carbon credits. While landowners may yield a higher price per credit, they face a larger burden from a longer contracting period and increased monitoring requirements.

Forest carbon protocols are well established in voluntary markets in North America. Compliance markets, however, are waiting on federal and provincial jurisdictions in Canada to develop forest carbon protocols that will allow private woodlot owners to participate. These are expected to be released later this year.

### How Do I Participate?

First, a feasibility study of your woodlot is needed that calculates how much carbon is stored based on your current forest management practices. Then, a detailed carbon inventory is completed, forest growth is modeled over the crediting period, and third-party verification occurs. Once verified, your carbon credits are registered with the voluntary or compliance market for sale. This process takes approximately 18 months from start to finish.

### Who Can Participate?

Any private woodlot owner is eligible as long as they meet the following requirements:

- Forested areas must be in one region but not necessarily contiguous.
- To be successful, feasibility studies need a minimum of ~2,000 hectares (~5,000 acres). However, it is possible to work with neighbouring landowners to meet this requirement.
- It must be proven that the timber would likely be harvested if not for a carbon market.

#### What Are the Benefits?

Carbon markets allow forest operators to continue harvesting timber with the stipulation that it be under the forest's annual growth rate. Using these markets, private woodlot owners can diversify their income stream and earn revenue from their land in more than one way. At Carson Integrated, we work with landowners to develop management plans that help maximize these benefits.

To learn more, feel free to reach out anytime to:

Toni Anderson, Project Manager, Carson Integrated. toni.anderson@carsonintegrated.com 780-805-9272



# Woodlot Harvesting Profitability and Fiscal Incentives for Silviculture Optimization

### Victor Brunette<sup>1</sup>

My woodlot owner profile is similar to members of WAA. I am 70 years old, retired, and I own 240 hectares of woodlots. My values are ranking from hunting, recreation, to sustainable forest management to keep my forest healthy. I wish for an eventual intergenerational transfer. I will continue to sell stumpage but I doubt that I will undertake operations by myself as I get older. I also doubt that I will make profit from harvesting wood sporadically, but I wish I had a fair income tax treatment when my woodlot generates revenues.

I harvested wood twice over the past years, one time due to a severe storm causing 20 hectares of windthrow in poplar and maple stands (2013) and once to recuperate 40 hectares of a jack pine (plantation) diseased with blister rust (2016). Stumpage sales (5000 cubic meters) netted 60,000\$ before tax. My woodlot grows at the rate of 2 cubic meters per hectare per year, so I harvest sustainably (240 x 2 x 10) 4800 cubic meters of growth over a period of 10 years. My operations are within allowable cut (AAC).

I reinvested all the revenue from stumpage sales into improvements for road access and silviculture. Sustainability also means that 300,000\$ have been reinvested with diverse financial partners in cost share programs (governments, group venture coops, Tree Canada, carbon credit programs) to return 60 hectares into active production. More than 120,000 trees have been planted. I can be thankful for the provincial programs in Quebec (professional forestry services, free seedlings, reforestation and plantation maintenance assistance covering 80% of the cost of silviculture, property tax reimbursement programs and forest credit programs at preferential rates to help pay the mortgage).

In Finland, Sweden, Norway and France, woodlot owners benefit from forestry savings funds where they can invest wood sale revenues (before tax) and retrieve the investments needed for forest regeneration, plantation maintenance and non-commercial silviculture improvements over a long period following harvest.

The Canadian Federation of Forest Owners (CFFO) is lobbying the Canadian government to consider such a **Personal Silvicultural Savings and Investment Plan (PSSIP).** The plan, similar to a RRSP, would be managed by local banking institutions. Woodlot owners would be allowed to hold money earned by harvesting their timber in those interest-bearing trust accounts, and income tax would only be paid on that money when it is withdrawn and used for purposes other than those prescribed for silviculture or management operations in the woodlot.

Such a mechanism would also provide more income and fiscal stability for the landowner, without affecting average income tax rate in the year of harvest. For retirees like me, sporadic high revenues affect tax bracket and pension revenues. The PSSIP would also alleviate the effects of woodlot ownership for those not so wealthy landowners who benefit from the Guaranteed Income Supplement.

The PSSIP would also change the way in which forest revenues and forest management expenses are perceived and handled. Revenue Canada still uses the realization of regular income every several years as the test of "a reasonable expectation of profit". In forestry, a longer time horizon is needed.

The PSSIP is the cadillac of a woodlot investment plan and is termed to be Plan A for the CFFO lobbying. In the next LOGJAM issue, I will describe other income averaging mechanisms, termed to be Plan B.

Retired professional forester, WEP manager 2004-2006, and woodlot owner in the Ottawa Valley

### LODGEPOLE PINE DWARF MISTLETOE DISEASE IN ALBERTA

Submitted by H. Cerezke



Dwarf mistletoes are parasitic plants that infect and grow on branches and stems of conifer trees. There are several species in Canada, but only one species occurs in Alberta, namely the lodgepole pine dwarf mistletoe (Arceuthobium americanum). The natural range of this species extends from coastal British Columbia eastward to the Manitoba-Ontario border. It is extensive in Alberta where it

infects our two main pine hosts, lodgepole pine and jack pine. More rarely, it has been found infecting white spruce, the two native soft pine species, limber and whitebark pines, as well as on the non-native Scotch and ponderosa pines.

### **Dwarf Mistletoe Effects on Trees:**

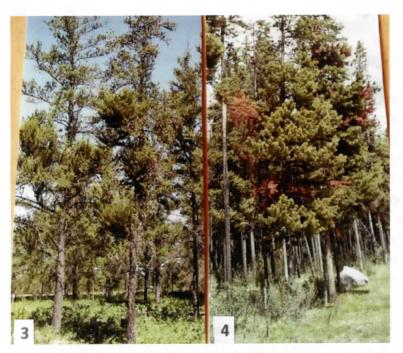
Dwarf mistletoes are small flowering plants that grow as separate female and male plants, with shoots typically 3 to 10 centimeters long (Figures 1 and 2). The aerial shoots of mistletoe contain chlorophyl, however little photosynthetic food is produced to sustain its growth and development. Instead, this parasitic plant relies on its host tree for its main source of water and nutrient requirements. It also depends upon the host for support and from which its seeds are distributed. The dwarf mistletoe plants also produce chemicals that cause the host tree to develop an abnormal cluster of branches, which are referred to as the characteristic "witches' brooms" (see Figures 3-jack pine and 4-lodgepole pine). These interactions with the host tree result in a variety of tree dysfunctions, including a reduction in height and diameter growth and in wood quality, reduced seed and cone development, tree top and branch mortality, and often end in tree mortality.

The presence of heavy brooms adds stress to the trees, making them more prone to top dieback and decline, especially during periods of drought. Such stressed trees have increased susceptibility to bark beetle and wood borer attacks and to root decay fungi. In 60-year-old lodgepole pine trees that had sustained moderate to severe infections of mistletoe had 15 to 30 percent reduced volume, compared to uninfected trees of the same age. In other studies, annual growth losses for lodgepole pine in Alberta and Saskatchewan due to dwarf mistletoe infections were estimated as 486,000 cubic meters, while annual losses due to tree mortality were estimated as 69,000 cubic meters.

### Life Cycle and Host Infection Development of Dwarf Mistletoe:

The dwarf mistletoe plants produce flowers in April and May, followed by pollination and fertilization from pollen produced on the separate male plants. This results in the formation of a fruit or berry, each of which contains a single seed (Figure 1, female shoots with berries).

The berries remain on the female plant for about one year before ripening, at which time the seeds are forcibly discharged sometime during mid-August to late-September. Each seed is surrounded by a mucilaginous substance called viscin that, upon ejection, enables it to adhere to whatever surface it lands on, such as pine needles or bark surface. Individual seeds can be ejected up to 15 meters away from their origin. The seeds remain dormant overwinter, then germinate in April to mid-June on the bark surface of its host tree. Germination involves the seed radicle penetrating the bark with one or more wedge-shaped infection pegs that penetrate through the bark into woody tissue, thus beginning the parasitic infection process. The dwarf mistletoe plant continues



to develop over the second, third and fourth summers, resulting in a swelling of the host branch at the site of the infection. Separate female and male plants become recognizable by the fourth year after germination. The length of time required to complete the life cycle from one seed ejection period to the next seed ejection appears to be 6 or 7 years on lodgepole pine, but is only 5 years on jack pine.

The mistletoe infections occur on needlebearing twigs where they stimulate dormant buds to produce the dense cluster of branch growth or witches' broom. Generally larger brooms form on jack pine (Figure 3) than on lodgepole pine (Figure 4), and they tend to survive and enlarge during the life of the host tree. Tree survival is highly variable

once infections occur, and partly depends upon the number of infections, the size of brooms and their distribution within the tree crown.

Implications of Climate Warming on Dwarf Mistletoe: Climate limits the range of dwarf mistletoe, so that a warming of temperatures will likely result in extensions of its range northward toward the Northwest Territories and to higher elevations. Increases in infections with climate change have also been forecasted for both jack and lodgepole pines. It has also been pointed out that the extensive mountain pine beetle caused mortality of mature lodgepole pine has reduced some of the current risks of mistletoe infections and spread, since the mistletoe plants die at the same time as their host is killed.

Historically, wildfire has been an important factor in determining the distribution, abundance and spread of dwarf mistletoe in western North America. However, during the past 80 years or more of fire suppression in the province, this has partly disrupted the natural fire-dwarf mistletoe ecological relationship. Consequently, there has been a general increase in the severity and distribution of dwarf mistletoe during the suppression period.

With increasing climate warming there are now predictions of increased wildfire episodes, and this will no doubt act as a controlling effect on the overall distribution and spread of this parasitic plant. The presence of dwarf mistletoe infections and brooms in tree crowns can also increase live-tree consumption during wildfires because the dead branches and brooms are highly flammable fuels. The more frequent incidence and intensity of predicted future burns will decrease areas of infected stands and may also decrease residual upper crown infections that would otherwise survive less intensive crown fires.

### Forest Management of Mistletoe Infected Stands and Ecological Values:

At the forest management level, control of dwarf mistletoe has sometimes been necessary to prevent early infection in young stands. When young trees become infected at an early age they usually do not develop into commercially valued trees at maturity. For this reason, forest management control efforts focus primarily on protecting the youngest stands from early infection. Clearcutting, in addition to wildfire, has likely been the most efficient and economically viable method of controlling dwarf mistletoe in mature pine stands since it eliminates all trees with infections. Uneven aged infected stands generally produce ideal conditions for rapid mistletoe spread. This is because the infections in the upper crowns of over-story trees can efficiently disperse seeds to lower crown trees. See Figure 5 that shows a jack pine stand with young and mature trees (heavily infected) where understory trees are at high risk of being infected from seed dispersed from the overstory trees. The potential distance that seeds can be dispersed ensures that new infections will occur on all understory and regeneration trees. Some seed may also be dispersed by birds. Besides clearcutting, some control efforts can be achieved through partial cuts and during thinning operations.

In areas where infected trees are of high value such as in parks, recreation, woodlots and home sites, infected branches and brooms can be mechanically pruned to preserve lightly-infected trees.

Occasionally the brooms can become large and heavy, becoming a safety hazard when they can break off during high winds or severe storms.



While forest managers may view dwarf mistletoe as a disease condition contributing to reduced forest productivity, other ecological and biodiversity values should also be recognized. From an ecological and tourism perspective, the mistletoe plants and brooms can add visual interest and variety in the landscape. Also, it is recognized that many species of birds and small mammals are known to use witches' brooms as sites for resting, gathering food or for arboreal nest construction. The dense foliage and twigs that form a broom provide a protected space in its interior. Many fungi and insects are pathogenic or fed as herbivores on dwarf mistletoe plants and have value in providing biological control of the mistletoe plants as well as providing enhanced biodiversity.

# 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

Ivan Whitson, Ph.D, P.Ag Senior Soil Scientist 35 years of experience in soil survey, research, interpretation, and evaluation I Whitson Innovations Inc. PO Box 1241 Station Main Edmonton, Alberta T5J 2M8 iwhitson@telus.net 780-717-7363



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Give me a call to discuss your vision.

Dan - 780-753-1544.

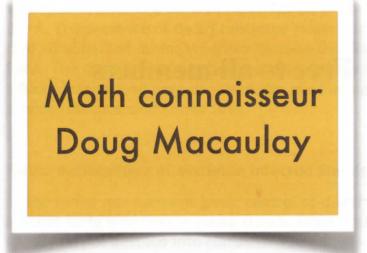


Contact:

email:

will@nextgenerationreforestation.com

Tel: (780) 532-2220



### The Flight of The Underwing Moth

Fall is the season of color. It is the harvest season. It is the time of year when the natural world makes its great final push as it prepares for winter. It is the season for Underwing moths.

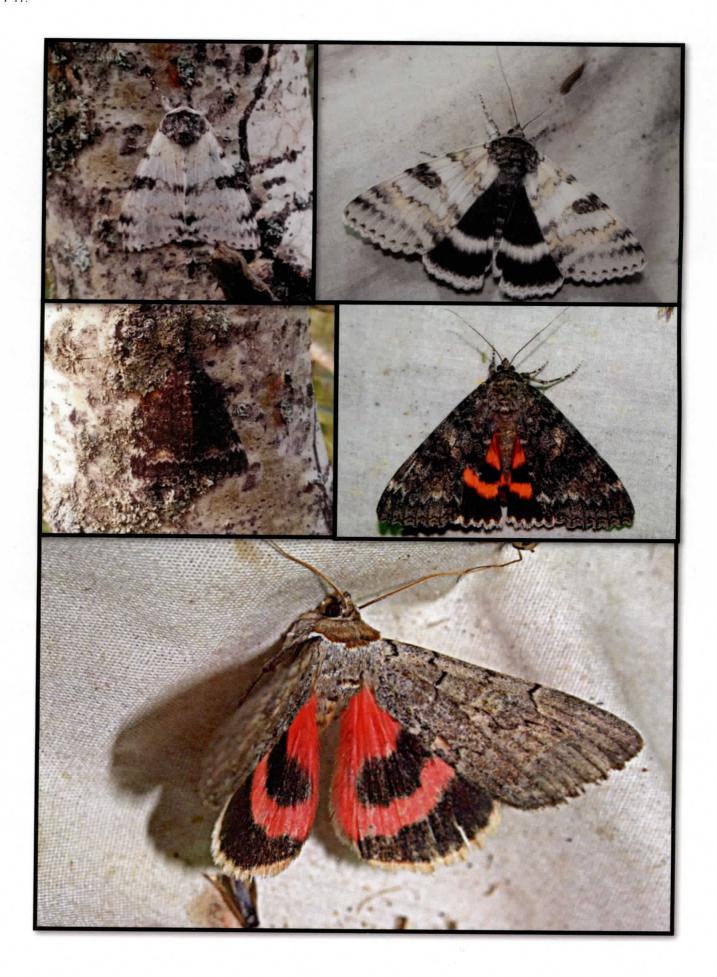
Underwing moths are one of the most colorful groups of moths. When you encounter one, at first they just look like another large drab grey moth resting beside a porch light. However, what makes them spectacular is their hindwings that range from reds, oranges to bright pink.

Therefore, if you spot one and give it a gentle nudge it will flash these stunning hindwings before making its escape.

They love the fermenting sugars of fall fruit. A remarkable fall suited adaptation that allows these insects to take advantage of the bounty of fermenting fruits that have tumbled to the ground. In fact, their fondness for these fermented sugars has created a special activity that many moth lovers prepare for all season called "sugaring." As famous entomologist, Robert Sargent states in his book Legion Of Night: The Underwing Moth, a moth hunter will prepare a sugary mixture of molasses, beer, rum and fermented fruit to attract these beauties. Then on a warm night, the eager participants head out at dusk with a pail of their personalized a smelly concoction with a paintbrush in hand and apply the mixture on the trunks of trees along a forested path. Then after darkness arrives they set out with their flashlights to explore the sugaring line to for impaired underwing moths.

Underwing moths are the masters of evading predators. Birds and Bats who are stocking up for their big fall migrations or hibernation love to snack on big juicy moths but Underwing moths have some tricks up their sleeve to escape. Firstly, they are the masters of camouflage and are almost invisible against a tree trunk. Their forewings range from intricate patterns that match the bark of the host trees. They can be white like an aspen or birch with patterns of grey to hide perfectly on the trunk of a Balsam Poplar. They can also detect bats. They have specialized sensors that can detect the clicking sonar of a pursuing bat. Therefore, if a bat gets to close, the moth instinctively stops flying and drops to the ground.

Another interesting thing about underwing moths are their colorful common names. There was definitely something in the air when the taxonomists who named them between 1850 and 1900. Names ranged from the Once-married Underwing, The Betrothed Underwing, The Old Maid Underwing, Oldwife Underwing Moth, Widow Underwing, the Mother Underwing, the Bride Underwing and so on. It appeared that the men who seemed to be under some sort of strange spell. Perhaps they were participating in the consumption of some of the ingredients for sugaring.





Hello Everyone,

I hope 2022 is treating you well. And for the first taste of the wood 2022 we will make some breakfast. We will have two recipes.

Buckweat pancake with saskatoon birch syrup. In our proviety we have so much saskatoon berries. We have a lot along the ridge. Those little berries are source of food to a lot of animals in the area (deer, coyotes yes, bear, birds).

### Let's start to make the pancake:

- 1.5 cups buckweat flour
- 1.2 cups of milk
- 2 tablespoon of lemon juice
- 4 tablespoon of unsalted butter melted
- 1 tablespoon of sugar
- 3/4teaspoon baking soda
- 1 pinch of salt
- 1 egg
- 1 teaspoon of vanilla extract

In a bowl mix miland lemon juice and let it set for 5 to 10 min. It will come a bit like buttermilk. In another bowl mix flour, sugar, baking soda, and salt.

Mix egg and vanilla extract with milk.

Make a well with flour mixture and add milk and melted butter. Stir until no lump. Let it sit 30 min.

Cook pancake in a lighted oiled ry pan in medium eat for 3 minutes each side approximately. Reserve pancake.

For the birch saskatoon syrup you will need equal part syrup equal part fresh or frozen saskatoon berries. (if they are frozen add the juice too). Cook to a simmer for 15 min and stir a bit. Poor warm syrup on pancake and garnish with a scoop of sourcream.



This is the picture of the ridge with all the saskatoon berries.

Hope you will enjoy this recipe. On the next edition we will make some tea with the product we found in our woods . During spring and summer months I always forage ingredients for the winter months.

If you have any question you can contact me: <u>cuisto04@bluewin.ch</u>

Thank you and enjoy.

If you have a woodlot or want to stay informed on issues about your woodlot like trees health, bug invasions, lumber, benefits of muskeg, 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 Asso	ciation of Alberta.
Name	Membership
Mailing Address Town/City	1 Yr: \$30 2Yrs: \$50
Province Postal Code	2Yrs: \$50
Legal Land Description	Sustaining: \$
Phoneemail	

### 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 year membership to the	Woodlot Association of Alberta as	would like to buy a one s a gift at the amount of: \$25
For: Mr/Mrs		
Mailing Address		
Town/City		
Province	Postal Code	
Signature:		

# Inspiration

Chris Nofziger wanted to share this poem with us. Let's get inspired...

### **Trees**

I think that I shall never see a poem lovely as a tree.

A tree whose hungry mouth is prest Against the earth's sweet flowing breast;

A tree that looks at God all day, And lifts her leafy arms to pray;

A tree that may in Summer wear A nest of robins in her hair;

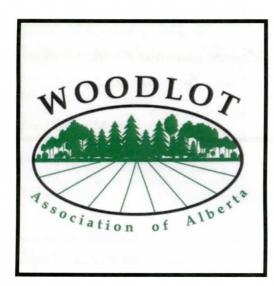
Upon whose bosom snow had lain; Who intimately lives with rain.

Poems are made by fools like me, But only God can make a tree.

Joyce Kilmer, February 2, 1913







### **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.

### Address of Beaverlodge office for renewal:

Woodlot association office Box 303 Beaverlodge, AB T0H-0C0

email:

jess@olsonsbookeeping.ca

tel:

1-800-871-5680

Web:

www.woodlot.org

# AGM-AGM-AGM-AGM-AGM-AGM-AGM



Time: 10:30am - 4:00 pm

Where: Forest Interpretive Center in Whitecourt

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