THE LOG JAM

Published by the Woodlot Association of Alberta (WAA)

December, 2016

A view from the top of House Mountain south of Whitecourt of

"THE ENDLESS FOREST"

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."

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Board of Directors

President's Report Laval Bergeron

Hello everyone,

I received a book as a gift, « The Hidden Life of Trees » by Peter Wohlleben, which just came out in 2016.
Although it is mostly about beech trees (pine and oack), which I had never heard of before. If a tree is a tree and a forest is a forest, then I presume the poplar and spruce on our woodlot here in Alberta live in the same manner as they do. How they feel, breathe, see, listen, think, move around, etc. Is it possible that trees do all that and if so, how?
Without going too much into details, what struck me the most, if I understand correctly, is the biggest part of their life is lived through their roots underground. Roots from different trees touch each other and from there, they know who their neighbour is, kind of thing. I guess in human life, I would compare it to you're half asleep, it's 4 :00am, you touch feet with the person next to you, without any words being said, communication happens. A thought!!
Good read, easy enough, proof is I read it ☺
To serious matters, your board of directors is still very implicated and thank you. What is #1 on the short list, is « Funding ». We are slowly running short of money. We are still in contact with Minister O'neil Carlier and will be reaching out to mills across the province for some support. Also, we're looking at the possibility of having a Casino in Grande Prairie. Thanks to Louise Hosrtman for doing the grunt work and on that note, if you have money looking for a home, WAA is the place to put it. ☺
We are still looking for a host for the AGM which is in the middle of June. If you are interested please call me or any of the board members and we will be pleased to help out.
There are other longer term issues that we are working but for now I wish you a good winter and when you are walking your woodlot, enjoy.

Classified ads

These ads are FREE to all members, for the - sale of any item - wanting to buy an item or service - offer a service - or - pets/livestock - etc.
Maximum of 30 words, no pictures Send ad to the editor

FOR SALE: Tamarack Hiking Sticks, various lengths, $50.00 each. Check our TerrCreation Facebook page for photos.
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Welding Service By Hand:Agricultural, Commercial, Industrial, Equipment repair Located in Lac Stę. Anne County : serving several outlying areas.
Call Terry at 1-780-305-8604

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FOR SALE: 12 X 15 cabin. Walls are 4 X 8 Aspen timbers dovetail corners, Roof is insulated caboose style. One 3' X 4' window and a small one in the hand-built door. Built on 3-18' - 8 x 8's skids. $15,000.
For info or photos Ph. Larry - 780-354-2710 or e-mail larrynofziger@gmail.com

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China tops the world for having 70 million ha of planted forest

HOHHOT - China is home to 69.3 million hectares of artificial forest, the most in the world, following more than six decades of afforestation work, said Zhang Jianlong, head of the State Forestry Administration.

Total forest acreage has grown to 3.12 billion mu (208 million ha) from 1.24 billion mu in early 1950s, covering 21.66 percent of the land area, compared with 8.6 percent more than 60 years ago. Zhang said at a national conference on accelerating afforestation over the weekend in Hohhot.

Zhang said the administration aims to have more trees planted in areas along the Belt and Road Initiative region, the Beijing-Tianjin-Hebei region, and the Yangtze River economic belt.

Drought and excessive lumbering with little awareness of conservation had deteriorated water and soil erosion as well as desertification in the country. China launched a 70-year program of planting trees in its northern, northwestern, and northeastern parts to improve eco environment in 1979.

China has effectively contained desertification, with desert land area shrinking continuously over the past decade.

The area of formerly productive land degrading into deserts has been contracting at an annual average of 2,424 square km for over 10 consecutive years, Zhang said in a separate occasion.

WAA SUMMARY OF ACTIVITIES AND EVENTS to NOVEMBER 2016

Karen Visser

The Board of Directors have had a busy year.

From the AGM held in June at the Legion in Morinville where there were some quality speakers and sessions, the board gained some new directors and gratefully acknowledged the dedication and work of outgoing Secretary Louise Hortsman. The new Treasurer is Elton Kaufman and new directors are; Warren Stewart, Gordon Kerr and Karen Visser, who accepted the role of Secretary.

Funding options to support the future goals and activities of the WAA. Meetings have been held with the Minister of Agriculture and Forestry, Oneil Carlier to discuss potential sources. A letter is being presented to members of industry to request support of the work of the WAA as a valued partner in the forestry sector of the province. A Casino application is being pursued as another funding opportunity. The consideration of registering to be administrators of a wood "Check-off" system is also an ongoing topic of discussion and information gathering.

Memberships in the WAA are updated and initiated by our efficient director, Herb Cerezke. We are continuously looking for more ways to gain membership and engage the members in the association.

The Blue Ridge Community Library was housing resources that did not fit into their collection from the previous Woodlot Extension Library in Edmonton. These resources were reviewed by Karen Visser and relevant resources will be offered to WAA members at the next AGM in June 2017.

Herb Cerzke and Karen Visser are the designated attendees and liaison to the meetings held by AWES (Alberta Woodlot Extension Society) and report back to the WAA after these meetings.

The WAA Is working with the Department of Forestry to obtain leases of crown land in the White Zone for the purpose of farm woodlots, this is still in process.

MGA (Municipal Government Act) The WAA has provided input to the Minister with regard to the definition of a woodlot. In early 2017 it will be available for public review and we will communicate further with the office of the Minister.

Silviculture Proposal (Federal/Provincial) This is a proposal to plant trees on private land, with a focus on afforestation, and supplemental planting in existing forests. So far it has been well received.

Free Classified Ads in the Log Jam: New Corporate members will receive a one-time free ½ page advertisement in an issue of the LogJam. Starting with the December 2016 issue, there will be a Classified Ad area where members can post services and buy and sell products.

The Board Wish a VERY MERRY CHRISTMAS and a HAPPY NEW YEAR to all MEMBERS of the WAA

TreeCanada | ArbresCanada

(Replacement trees for those killed by Mountain Pine Beetle)

The Alberta Mountain Pine Beetle ReLeaf program provides funding to homeowners, private landowners and municipalities for the replacement of trees and the recovery of forests affected by mountain pine beetle on private or municipal lands in Alberta.

WHO CAN APPLY?

YOU as a landowner can apply if you are replacing trees at a minimum cost of $200! If you are planning to replace trees on your property for over $3000, you must demonstrate the following:

- Planting stock and materials comprise at least 50% of requested funding
- A commitment of at least 25% of the total project costs will be covered by you. This includes financial commitments from yourself, other organizations/companies, or in-kind contributions (time and labour can be included as in-kind).

Eligible Project Costs include:

- **Native trees:** including all planting stock native to Canada as appropriate for the planting site. You do not need to replace your lost pine trees with new pine trees.
- **Planting material:** mulch, soil, tree guards or other materials required to establish and maintain healthy trees (stonework is not eligible).
- **Planting costs:** costs associated with the hiring of a tree planting contractor, *if the applicant can demonstrate they require these services* (include supporting details in application).

Submit your online application at **treecanada.ca**. For questions concerning eligibility and application support, please contact Katherine Witherspoon at 613-567-5545 x 225 or at **kwitherspoon@treecanada.ca**.

Kaj Pedersen

July 23, 1933 -- September 15, 2016

I want to let you to know that, Kaj passed away on September 15, 2016. He was a member of the Woodlot Asscoiation for many years and felt that it was very important to him. He enjoyed working on our land which turned into a beautiful woodlot. It was with sadness that we had to sell the land and move from Fairview to Leduc, due to health issues, but the new owners agreed to keep the land as we left it.

Kaj took his, Heavy Duty Mechanics training in Denmark, in 1956 he and his wife Inger came to Canada. Kaj worked as an instructor in both the Keyano College in Ft. McMurray and the Fairview College.

Kaj is survived by his wife of 60 years, Inger Lise, three children, five grand children and four great grand children.

Kaj did not want a funeral as such, he was cremated in his favorite blue jeans, a T-shirt with the logo "B & B Woodlot" and his favorite cap.

If there is a life after this, I'm sure Kaj will be walking among the trees right now, creating a new woodlot. I have a lovely family and good friends, but we all miss Kaj a lot. Love Inger-Lise Pedersen

Oobius agrili, parasitic wasp, introduced to Ontario to fight emerald ash borer

There's a tiny new weapon being used in the fight against the destructive emerald ash borer in Ontario.

The federal government recently approved the introduction of a foreign breed of parasitic, non-stinging wasp that destroys ash borer eggs from within.

Scientists are now starting to release them into the National Capital Region.

In their native China, the *Oobius agrili* wasp is the natural enemy of the emerald ash borer.

The wasps lay their eggs inside the eggs of the emerald ash borer.

The wasp larvae eat the contents of the emerald ash borer eggs and then burst forth from the destroyed eggs as fully formed wasps to search for new eggs.

There are two types of the wasps approved for use in Canada: one type attacks emerald ash borer larvae and were approved two years ago, while the second type attacks the eggs and were approved last month.

'Not going to eradicate emerald ash borer'

"We don't expect we're going to get 100-per-cent control, we're not going to eradicate emerald ash borer," said Sean Barker, director of Eastern Ontario Arborists Inc., which works to stop the spread of emerald ash borer in Ottawa.

"I don't believe that's even in the realm of possibility but keeping it at manageable numbers and controls would be considered a success. ... Just having the opportunity to save trees is what we're hoping for."

Barry Lyons, a forest entomologist for Natural Resources Canada, worked to bring the wasp to Canada.

He said the Canada Food Inspection Agency is concerned the wasps could target a few species very similar to the emerald ash borer, but that the "benefits greatly outweigh the risks."

Lyons has been installing "oobinators" full of *Oobius agrili* eggs across areas affected by the emerald ash borer.

His department will now have to monitor the effectiveness of the wasps to see if they start cutting into the emerald ash borer population.

The Endless Forest

Jurgen Moll

The view from the top of House Mountain on the cover of this news letter, gives the impression that most Canadians have of Canada's forests, which is that they are very nearly "endless". But everything has an end if not managed properly, There are ample examples from parts of the world which were once forested but are now converted to, prairie, marginal agriculture, deserts, and pavement for cities and transportation corridors, or other industrial activities such as mining. the oil & gas exploration.

Some of the crowning examples of deforestation over the past 4-5000 years are, desert expansion in North Africa, the Middle East and northwest China, Experts believe that these deserts have been much enlarged and are still being enlarged due to excessive grazing of sheep and goats. Closer to home the entire state of Indiana,USA was once covered by hardwood forest there are now only 80 acres of the original forest left (this is now a Park). The absolutely worst example of deforestation is Easter Island it s only 64 square miles, located in the Pacific Ocean over 1000 miles from any land. Archeologists believe that it was first inhabited in 900-ad and that the island was forested with trees up to seven feet in diameter. They managed to eliminate all the trees, which resulted in a complete collapse of their society the population lost 70%, starvation lead to cannibalism and war. It is an interesting read to see why the loss of the forests was the cause of this

.

What some may say is that this can not happen in 2016 as we know how to avoid deforestation, this certainly is not true for even as we speak in parts of the third-world deforestation is still taking place, namely the great rain forests in Brazil and Indonesia. For the forests are even now in greater danger than in the past because modern equipment makes it possible to deforest a mere 64 square miles in a few years, whereas it took the people with stone tools some 4-500-years to accomplish this, therefore for our very own survival we must preserve them.

Preserving forest is not a new idea, the first mention to do so was found in some writings from the Han Dynasty (206 BC to 220 AD). During the Roman empire some large land holders in Italy were setting aside some land for forest: The Visigoths in Spain in the 7th century when faced with a shortage of wood had a code to preserve Oak and Pine forests.In many parts of Europe from the 12th to the 17th centuries most land was owned by large land o holders that set aside forest land for their use and hunting rights. But non of these were based on any science.

What is the salvation and preservation of our forests today? It is managing the forest by developing a management plan and then adhering to it. The easy part is the development of the plan, but the hard part is to adhere to it. Because as the world population continues to ever increase there will be an ever increased demand on wood products coupled with an increased price on trees.

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Systematic management of forests for a sustainable yield of timber, is said to have begun in some German states in the 14th century, But the first comprehensive book about forestry sustainable yield and silviculture was written by a Hans Carl von Carlowitz who was a mining engineer in Saxony, Germany. The first dedicated forestry school was established by a Georg Ludwig Hartig in Hesse, Germany in 1787. Other forestry schools were established later on ie, Spain - 1844, USA - 1898, Brazil - 1962. The first forestry school in Canada was established in 1907 at the University of Toronto. Today there are many forestry training schools in the world.

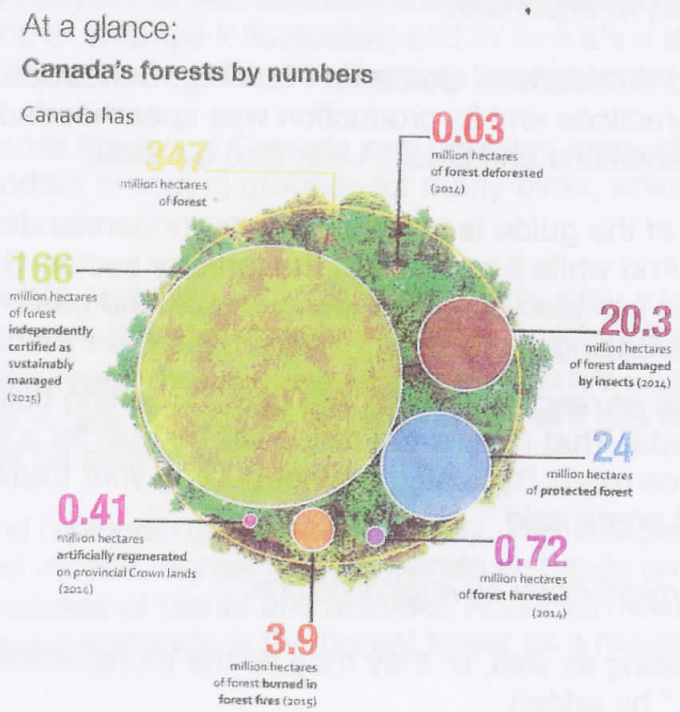
Now here at home Alberta's first forestry training stated in 1965 at NAIT with a two year Forest

Technician course and in 1970 a graduate forester course was started in the University of Alberta. This does not mean that there were no foresters in Alberta, rather they came from school in other parts of Canada , the USA and Europe. Most of these were employed by either the provincial or federal governments, as private industry did not require them because of how timber was sold in either a timber permit or a timber berth. Neither of these required a management plan, only a logging plan that an experienced logger could well do.

The real change came about in 1965 when the government of the day and some very progressive foresters, instituded the quota -system in all management units in the green zone. They granted or sold an established allowable volume to private companies for twenty years with option to renewal. But in order to establish an allowable cut they needed to know what volume of timber there was in each management unit. In order find this they instituded a province wide reconnaissance cruise of all conifer timber above 60 feet (deciduous trees were not included for they were not considered a commercial species at that time) this was a very large undertaking and took some five years to complete. Today many of the quotas have been rolled into Forest Management Areas (FMA) which require a detailed management plan.

Now that you have read this far and are wondering how does this apply to my small woodlot when compared to the size of FMA's. Well it does apply to all woodlots in that without a management plan you or who follows your ownership will not know what the purpose was for having the woodlot. I know that all woodlot owners have a plan in the back of their mind, the trick here is to put the plan on paper so you or anyone can follow it. This is even more important for those who have to sell it the plan will layout to a potential buyer, the benefits that the woodlot represents in, financial value, environmental, wildlife, water, carbon sink and personal satisfaction. Bear in mind that it is important that Alberta maintain ample forest land particular in the white zone and a management plan will work towards that objective.

REMEMBER that no FOREST is ENDLESS:



Article

New guide helps builders tackle resource roads

A new national field guide published recently is designed to help roadbuilders construct roads across wetlands in Canada's boreal forest.

Shown here is the wide-track tires (right) recommended for hauling in wetlands. Compare the wide tires with the conventional tires (left) on the truck parked next to it. The wide tires distribute the load over a wider area, help avoid compaction and, incidentally, may prevent the truck from sinking up to its axles in a wetland. - Photo: FPInnovations

It could also serve as an introductory lesson for anyone wanting a better understanding of wetlands and why they're important.

Resource Roads and Wetlands: A Guide for Planning, Construction and Maintenance is a compilation of best practices and its production was spearheaded by two non-profit organizations: FPInnovations and Ducks Unlimited Canada.

The central purpose of the guide is to foster a better understanding of the nature of individual wetlands. And while it is aimed at the forestry sector, Glen Legere says a lot of the recommendations can also apply to mining and oil and gas organizations. Legere is research leader, specializing in roads and infrastructure at FPInnovations.

The roads, referred to as resource roads, are unlike anything built by roadbuilders in the settled parts of Canada. That means the roads will be built for a forestry, mining or drilling company. So resource roads "typically, are not built by your traditional contractors who build paved roads," Legere said.

A forestry company might have several divisions.

"They may do harvesting as well, or they may do the transportation of the wood and they may build the roads," he added.

The idea for the guide originated from members of FPInnovations.

"We're a non-profit research organization the same way that Ducks Unlimited is a non-profit with its mandate of protection of wetlands. We receive direction on the research we do from our members," Legere said.

Those members, he said, are primarily forestry companies, provincial governments and the Canadian Forest Service.

He said work on the guide was driven by two main objectives.

"We want to protect the wetland, so we want to make sure that when we're putting a road in we're not having a negative impact on the wetland and the hydrological features of the wetland."

Ducks Unlimited was involved primarily on that part.

"We also were concerned with how you build a road so that it performs well, having truckloads on that road. So we outlined the design elements that are required to do that," he said.

The first few chapters of the guide are devoted to helping the roadbuilder identify a wetland and what kind of wetland it is.

"Then, once you have identified it, how should we go about building a road on that type of wetland," Legere explained.

The differences between types of wetlands were highlighted by Greg Siekaniec, CEO of Ducks Unlimited Canada, in a news release when the guide was published.

Wetlands "are delicate ecosystems with different characteristics," he said. "For example, water in bogs is stagnant; in swamps it fluctuates; and in fens it's a slow trickle. Understanding the way water flows is key to choosing the right road construction."

The boreal stretches across the top of Canada and contains many different types of wetlands. They are important breeding grounds for many birds, which explains Ducks Unlimited's interest.

On a global scale, Canada's wetlands, especially peatlands, play a key role in regulating greenhouse gases such as methane and carbon dioxide, which helps buffer the impacts of climate change. The guide notes that about a third of the world's peatlands — about 1.14 million square kilometres — are in Canada, which is why there has been a growing realization that they must be preserved.

Wetlands store water and replenish groundwater supply. Wetland plants provide grazing for woodland caribou and moose. Boreal and temperate wetlands provide important habitat for hundreds of species of plants and animals. About 26 million waterfowl and seven million shorebirds use wetlands in the boreal forest as a migratory stopover or as breeding habitat.

"We very rarely harvest wood on a wetland," Legere said. "But they're important and we need to protect them."

The guide is aimed at road managers, planners and construction crews who are involved in the planning, construction, maintenance and decommissioning of resource roads across wetlands.

It is a collection of best practices and doesn't provide detailed installation procedures. It doesn't address the challenges of building and maintaining roads where permafrost exists.

The complexity of wetlands means that there is often no simple answer to problems encountered building a road across it.

It says that "the physical, chemical, climatic and biological characteristics of different wetlands may mean some are particularly sensitive to roads and other industrial activities."

Part of the problem for laymen is that in Canada, wetlands are defined in different ways. There is no single definition that is legally recognized across all jurisdictions.

The guide notes that, broadly speaking, "wetlands can vary in size, have areas of open water, or be temporarily dry, and can be treed, shrubby, or open, with mosses, sedges or grasses."

The meatiest chapters in the guide are Knowing Your Wetlands, Planning Considerations and Practical Applications.

Partial funding for the guide was supplied by Sustainable Forestry Initiative Inc. (SFI).

Other partners included the New Brunswick Department of the Environment, Natural Resources Canada and four SFI Program participants: J.D. Irving, Louisiana-Pacific, Resolute Forest Products and Weyerhaeuser.

For more information on the guide, visit www.fpinnovations.ca.

AWC Supports Formaldehyde Regulation

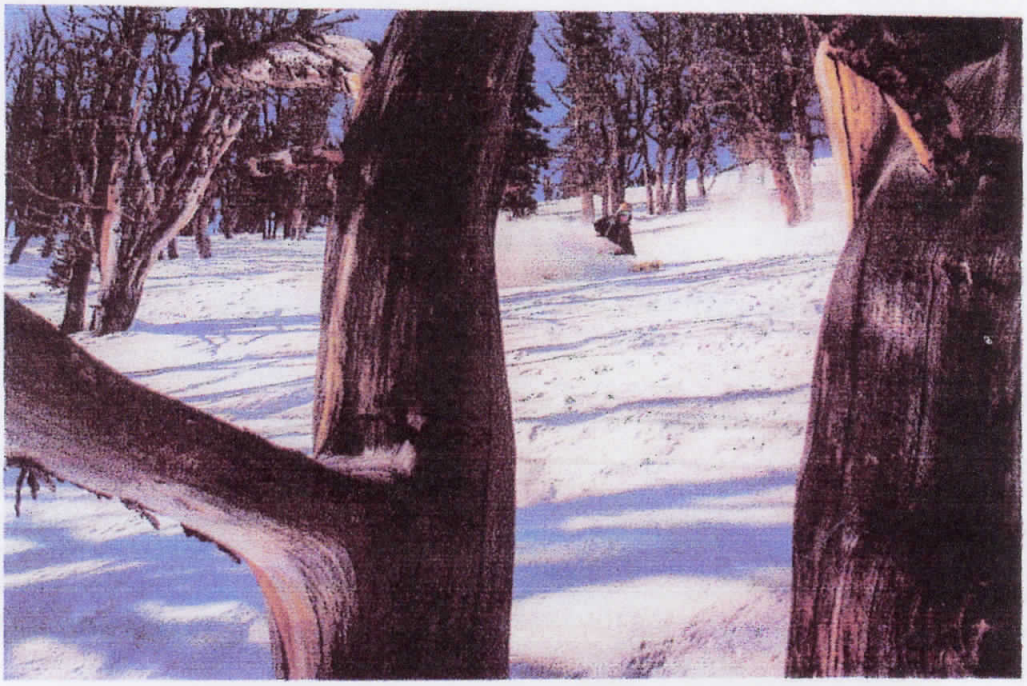
American Wood Council (AWC) has issued a statement regarding the use of formaldehyde in wood products. In response to the U.S. Environmental Protection Agency (EPA) finalizing regulations for the Formaldehyde Standards for Composite Wood Products Act, AWC President and CEO, Robert Glowinski, stated that his organization supported the legislation, which was consistent with the industry's commitment to the safety of its products. Glowinski added that implementing this rule essentially extends California's regulations nationwide, "creating a consistent system on how we regulate formaldehyde emissions for composite wood products manufactured in and imported to the United States."

New Construction Codes Enable Six-Story Construction Across Canada

The 2015 edition of Canada's National Model Construction Codes, now known as Codes Canada, includes 600 changes. Among the changes are higher standards for automatic sprinkler systems that will accommodate the construction of six-story wood buildings, new design requirements for improving the accessibility of washrooms and stairs, and new requirements for flow rates in showers that will reduce water usage in buildings. The federal government has announced an additional $40 million over five years to integrate climate resilience into building design guides and codes in response to climate change. The additional funding will support the revised national building codes and building design guides that will be ready for adoption in 2020.

There's a Tree in My Ski

Manufacturers use a variety of woods to build ski cores, most incorporating a combination of two or more to hit a balance between weight and strength. But as Moment Skis CEO Luke Jacobson says, "The wood core will change the way the ski feels as far as dampness or liveliness, but it also depends on how much carbon and fiberglass the ski has. It's how you mix the ingredients that will be the biggest difference."



So while wood is certainly important, a ski's personality depends on its layup. As a baseline, here are the most common woods found in skis:

Maple: Like ash, maple is lauded for its density and durability and forms the guts of many big mountain skis. Where it comes up short is in its elasticity or forgiveness, which can be a good thing if you like damp, quiet skis. It is also used underfoot for binding retention.

Fir: Lighter than maple but heavier than aspen, fir is used for dampening, pop, and binding retention underfoot.

Aspen: Lightweight with high energy, aspen is often used to complement denser woods to reduce the overall weight of the ski without sacrificing durability. Poplar, another common material in wood cores, has similar characteristics to aspen.

Paulownia: A flowering tree native to eastern Asian, paulownia is springy and lightweight. You'll often find it in backcountry skis or complemented with metal or carbon to increase its strength.

Bamboo: Technically a grass, bamboo is very light. The drawback of using a full bamboo core, according to Jacobson, is that it requires a lot of glue to hold it together, which adds weight. Many brands incorporate bamboo as stringers for strength and pop. "But what's cool is that you can bend that stuff so far," he adds. "It's a lot stronger than normal wood, giving you a really round and deep flex."

Scientists made see-through wood that is cooler than glass

Wood is a strong and versatile building material, but it rots, gets eaten by bugs, and blocks light.

Plain sheets of glass aren't much better. They shatter easily and let a lot of energy leak into or out of a building.

But engineers have recently figured out how to find the best of both worlds by making see-through wood.

The team, led by materials scientist Liangbing Hu at the University of Maryland, developed a patented process to turn wood translucent, make it more durable, and lend it incredible strength.

We first wrote about this wild-looking material in May 2016, but the same scientists recently published a detailed study about its properties in the journal Advanced Energy Materials.

How strong is it? The engineers write in the study that it has "high impact energy absorption that eliminates the safety issues often presented by glass."

The recipe to make translucent wood like this is a secret for now, but Martha Heil, a University of Maryland Nanocenter spokesperson, told Business Insider in May that the process uses bleach, epoxy, and — of course — wood.

First the researchers soak the wood in lye, also known as sodium hydroxide. The chemical removes lignin, a compound in wood that normally makes wood brown, strong, and resistant to the munching of pests.

Heil said it takes about 10 minutes to bleach a very thin piece of wood and up to 24 hours to bleach a small log

Next the wood is soaked in a "clear liquid" to clear it up. At this stage the wood is "very friable, or as one researcher put it, 'crunchy,'" said Heil.

Fully processed, clarified wood gets soaked in a glue-like epoxy that makes it very hard and clear.

This turns the porous tubes of cellulose in wood — which normally suck water up toward leaves and pull sugars down toward roots — into highly efficient light diffusers.

"You have a uniform consistent indoor lighting, which is ... independent of where the sun is," materials scientis Tian Li said in a YouTube video released by the university, so even light from a glancing angle will illuminate the see-through wood.

And because this "glass" is made of wood, it's also a better insulator against heat.

"Our transparent wood also has a much lower thermal conductivity compared with glass, making it a better thermally insulating building material with a lower carbon footprint," the team wrote in the new study.

The researchers hope their creation will reinvent wood as the next big thing in renewable building materials, bu they have yet to scale up their bench-top work to a manufacturing level — and perfect a process that relies on less harmful chemicals.

"Making transparent wood requires using epoxy, so it's not very environmentally friendly right now," Heil said, noting the research team is "experimenting with other types of clear stiffeners, which will include PVP (polyvinylphenol), which is recyclable."

We can't speak for everyone, but we're really looking forward to green, shatterproof privacy windows in bathrooms that are made of wood.

Watch the full clip on the see-through wooden "glass" below.

The Human Touch

Tis THE HUMAN TOUCH in this world that counts,
The touch of your hand and mine,
Which means far more to the fainting heart
Than shelter and bread and wine,
For shelter is gone when the night is o'er,
And bread lasts only a day,
But the touch of the hand and sound of the voice
Sing on in the soul alway.

Spencer Michael Free

How millions of trees brought a broken landscape back to life

Twenty-five years ago, the Midlands villages of Moira, Donisthorpe and Overseal overlooked a gruesome landscape. The communities were surrounded by opencast mines, old clay quarries, spoil heaps, derelict coal workings, polluted waterways and all the other ecological wreckage of heavy industry.

The air smelt and tasted unpleasant and the land was poisoned. There were next to no trees, not many jobs and little wildlife. Following the closure of the pits, people were deserting the area for Midlands cities such as Birmingham, Derby and Leicester. The future looked bleak.

Today, a pastoral renaissance is taking place. Around dozens of former mining and industrial communities, in what was the broken heart of the old Midlands coalfield, a vast, splendid forest of native oak, ash and birch trees is emerging, attracting cyclists, walkers, birdwatchers, canoeists, campers and horse-riders.

Britain's trees have come under increasing attack from exotic diseases, and the grants for planting woodland are drying up, so the 200 sq miles of the National Forest come as a welcome good news story. The new woodland in the Midlands is proving that large-scale tree planting is not just good value for money, but can also have immense social, economic and ecological benefits.

In this one corner of the Midlands, more than 8.5m trees have been planted in 25 years, hundreds of miles of footpath have been created and 500 abandoned industrial sites have been transformed. The landscape and ecology of semi-derelict Britain has been revived and rewilded with trees.

Many of the young trees in the National Forest are little more than whips because hundreds of hectares are being planted every year as more derelict sites are taken over. But the trees that were dug in 25 years ago now stand 30ft tall and need to be thinned.

Along with the maturing trees have come buzzards and red kites, skylarks, butterflies, otters, bats and owls.

As the trees continue to grow, insects, small mammals and flora will come too, says John Everitt, director of the not-for-profit National Forest company, which has taken over many of the area's old industrial workings and also advises landowners and farmers about switching from low-grade farmland to forest and woodland.

"This is one of the largest landscape transformations in the United Kingdom, the first major forest to have been planted in England for 1,000 years. We have taken a black hole and given it a new lease of life; given people a new landscape they can identify with. We can say that air pollution is better, the rivers are cleaner, the water is being retained better and soil is being better conserved.

"It is one of the very few long-term projects for which a government had a vision and that success ones have followed through and supported. It's very hard to argue against it. Why would you not c this? It has cost just £2.5m a year and brings in so many benefits in health and economics. It sho that the principle of using the environment and trees to regenerate a place and stimulate growth c work anywhere."

"There was an active demand by local people for the forest to come here. It did not need to be imposed on people, but it took some time before the farmers embraced the idea fully," he says. "A the surveys done in the past 20 years suggest that the transformation of the landscape has been popular, giving communities a new sense of place and identity."

Government committed last year to the planting of 11m trees by 2020, but Britain is likely to rema near the bottom of the European league table for tree cover, with around 13%. In addition, Britain forests are threatened with devastation by tree diseases. Recent academic analysis has warned that all the ash trees in the UK and across Europe are likely to be wiped out by a "double whammy" of bright green borer beetle and the fungus that causes ash dieback.

"Between ash dieback and the emerald ash borer, it is likely that almost all ash trees in Europe wil be wiped out, just as the elm was largely eliminated by Dutch elm disease," said Peter Thomas, a ti ecologist at Keele University whose analysis was published in March's *Journal of Ecology*.

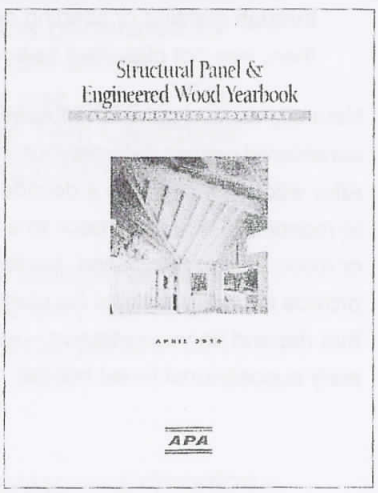
The same problems face the National Forest, says Everitt. "There are grants available for tree planting, but they are not that attractive now. Good woodland schemes are not available now.

"But the National Forest is protected because it has so many species. Last year, we had our cases o dieback and it is now spreading quite rapidly; 15-20% of the trees that have been planted are probably ash. Many of them will be replaced naturally. But there may not be huge die-off here because we are thinning around 20% of the trees. We must understand that this forest is not just about its trees. Trees are important, of course, but they are the setting for everything else."

China Showcases Environmentally Friendly Products at Annual Fair

Exhibitors from across China will be showing off their latest environmentally friendly products and technologies at this year's China Yiwu International Forest Products Fair. The theme for this year's fair is "Share Green Practices" in categories that include Furniture & Accessories, Timberwork & Wooden Building Materials, Wood & Bamboo Handicrafts, Wood & Bamboo Daily Necessities, and Forest Food. Organizers say as the largest forest products fair in the world, it is the best platform in the Asia-Pacific region for boosting forestry-related business opportunities. The annual event is in its ninth year and is expected to attract 1,200 exhibitors, more than 100,000 visitors and deals worth an estimated US$ 603 million. The China Yiwu International Forest Products Fair will take place Nov. 1-4, 2016.

APA Releases New Yearbook



APA has released its *2016 Structural Panel & Engineered Wood Yearbook*. The yearbook includes an analysis of American, Canadian and global economics, focusing on factors that influence demand for engineered wood products across several market segments, as a basis for forecasting expected production over the next five years. The book also includes historical data on engineered wood production and covers topics such as residential construction in the U.S. and Canada, outlook and production statistics for structural panels (OSB and plywood), and North American imports and exports.

How much forest does Canada have?

Canada has 347 million hectares (ha) of forest. This represents nearly 9% of the world's forests.

What is a forest?

The Food and Agriculture Organization of the United Nations (FAO) defines forest as land spanning more than 0.5 ha where the tree canopy covers more than 10% of the total land area and the trees can grow to a height of more than 5 metres. It does not include land that is predominantly urban or used for agricultural purposes. Forest is treated as synonymous with forest land.

Land that temporarily has no trees is still considered to be a forest when the disturbance is known to be temporary and trees are expected to grow back (e.g., after harvesting, fire, or an insect infestation). This is distinct from:

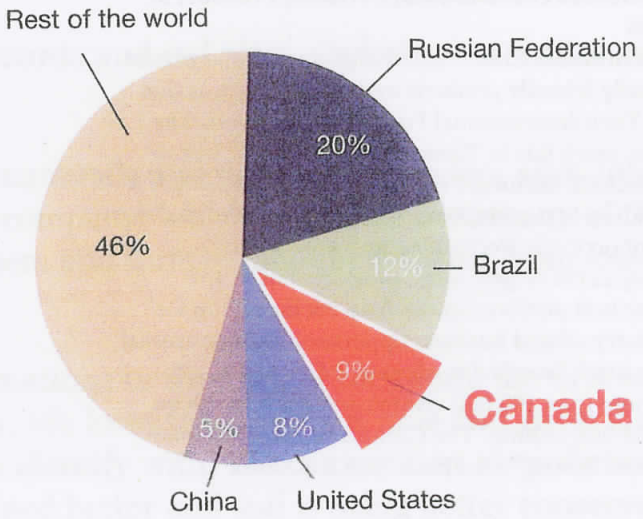
- deforestation – The conversion of forest to another land use, such as clearing for agriculture or the permanent reduction of the tree canopy cover to less than 10% of the total land area.
- afforestation – The establishment of forests through planting or seeding on land that, until then, was not classified as a forest.

Naturally caused gains and losses of tree cover are considered neither deforestation nor afforestation. After wildfire, it can take a decade or more for trees to regenerate and grow back to a height of 5 metres or more. During this period, the forest continues to provide important habitat for plant and animal species that depend on young forests – what ecologists call early successional forest habitat.

The majority of Canada's forests are on publicly owned land. Many are in parks or protected areas; others have been designated for multiple-use sustainable forest management; and still others are in remote, sparsely populated areas where forests are not designated officially for particular uses. Provincial and territorial governments collaborate with the federal government, the forest industry and other stakeholders to ensure that forest monitoring and evidence-based sustainable practices are maintained.

In previous State of Canada's Forests reports, forest area was based on the most current National Forest Inventory (NFI) baseline survey (period of measurement from 2001–2006). In an effort to provide trend data and to align with other reporting organizations, forest area is now adjusted for known deforestation and afforestation to provide adjusted values for other reporting years. The next full survey of our NFI is expected to be completed in 2017, at which time forest area will be adjusted to reflect data collected between 2007 and 2017.

Where are the world's forests?



Aspen Defoliation Widespread in Alberta This Year

Many Albertans have witnessed widespread aspen defoliation this year. Alberta Agriculture and Forestry's Forest Health personnel annually conduct surveys to determine both the location and size areas affected as well as determine the causal agents of the defoliation. To date these efforts have indicated that the scale of the outbreak this year appears to be very large. Defoliation has been noted in many areas of the province. Ground checks, so far, have indicated the primary cause of the defoliation as being caterpillars from two species of moths – the large aspen tortrix (*Choristoneura conflictana*) and the forest tent caterpillar (*Malacosoma disstria*). The large aspen tortrix infestation extends over much of the southern and western parts of the province and the forest tent caterpillar outbreak appears to cover much of the central, eastern and north eastern areas of the province.

Large aspen tortrix larvae. Photo Mike Maximchuk

Outbreaks of such defoliating insects occur periodically in most forest ecosystems, sometimes covering vast areas in very short periods of time. Large increases in populations can occur when external forces (climatic conditions, diseases, natural enemies, etc.) fail to limit growth. Such occurrences are normal and are generally not detrimental to the long-term health the forests. In boreal ecosystems these insects are important for nutrient cycling and, despite negatively affecting growth in the short-term, actually play an important role in maintaining forest productivity.

Large-scale outbreaks normally last for about 3 to 5 years. Typically, forest stands in any particular area are only defoliated for a couple of years before the caterpillars move on to other areas. Defoliated trees experience lower growth rates and may be more susceptible to secondary insects and diseases. They may also suffer crown die-back or even die if they are severely defoliated over a number of consecutive years. In most cases, however, the trees re-foliate after the caterpillars cease feeding and actually benefit from the increase in available nutrients generated by the insects. Once the outbreak collapses, it can take a considerable amount of time before another one occurs. For instance, the average period between Forest Tent Caterpillar outbreaks in Alberta has historically been approximately 10 years.

FTC on NW Alberta highway in 2005. Photo Mike Maximchuk

It may not be pleasant aesthetically to have vast areas of aspen denuded of foliage, but in the absence of drought conditions, or other stressors, the trees normally recover very well. For more information on aspen defoliators, or other forest pest conditions in Alberta, please visit Alberta Agriculture and Forestry's Forest Health website.

Tom Hutchison—Edmonton

Helping Canada's urban forests adapt to climate change

Urban forests improve the quality of life in cities and towns in many ways. Trees, on both public and private property, increase biodiversity by providing essential wildlife habitat. Through their natural growth systems, trees also improve air and water quality by removing pollutants from the air and reducing stormwater runoff. And trees lessen the "urban heat island" effect (warm temperatures created by human activities and city infrastructure) by adding moisture to the air and creating shade, both of which lower temperatures.

These positive impacts are linked to notable human health benefits, including reductions in stress levels, childhood obesity, and respiratory and cardiovascular illness and increases in longevity. Access to trees has even been linked to improved workplace satisfaction and job performance.

Urban forests provide many economic benefits, too. For example, they create park maintenance and planning jobs, enhance tourism, and increase property values. Trees also extend the life of municipal infrastructure by preventing erosion and flood damage, and they help reduce air conditioning and heating costs by shading homes and buildings. Studies have shown that for every $1.00 spent on urban forest maintenance, city trees provide $1.35 to $12.70 in benefits.

Then there is the benefit of greenhouse gas (GHG) reduction: urban forests help reduce the level of atmospheric carbon dioxide (CO_2) and other GHGs. Canada's managed forests absorb vast amounts of carbon annually – equal to the weight of about 424 CN Towers. As urban forests account for about 5% of Canada's managed forests, that means the atmospheric carbon absorbed by city trees is equal to nearly 2.5 million metric tonnes – the weight of about 21 CN Towers.

However, Canada's urban forests are being challenged – by development, invasive species and, increasingly, climate change. Extreme weather events, higher annual temperatures and more frequent periods of drought are putting a strain on tree health, and stressed trees face increased risk of disease and insect damage.

Across Canada, cities are testing and promoting a variety of approaches to help urban forests adapt to climate change. For instance, greater genetic diversity in tree species planted offers urban forests protection from catastrophic losses caused by drought, insects such as emerald ash borer, and diseases such as Dutch elm disease. Many communities are also exploring ways to maintain and increase the extent of tree canopy cover. Property owners can help by keeping their existing trees healthy and planting new and more diverse species.

Interested urban residents can express their inner scientist by participating in "citizen science" projects. Often led by governments or non-profit organizations, these projects rely on local residents to record forest and tree observations and relay the information to scientists.

Urban forests in four major Canadian cities

HALIFAX REGIONAL MUNICIPALITY

41% urban forest canopy cover

$31.37 million total benefits per year

GREATER MONTRÉAL

20% urban forest canopy cover

$24.44 million total benefits per year

TORONTO

30% urban forest canopy cover

$81.29 million total benefits per year

GREATER VANCOUVER REGIONAL DISTRICT

43% urban forest canopy cover

$224.15 million total benefits per year

My Woodlot

The development of the area of wooded land that I call "my woodlot" dates back to about 1946, when I was a twelve year old lad with my old single shot 22 rifle, hunting rabbits. The rifle had just been returned to my father by the RCMP, who had confiscated it for the duration of World War II.

The land was located across the road from our home quarter and was covered with all kinds of forest trees native to Northern Alberta with the predominant species being white spruce. About five acres of the approximate thirty-five acres total, was park like; the spruce trees being well spaced and a couple of feet taller than I was. It was isolated from the main wooded area by a small creek on two sides and a field and property boundaries on the other two. It was owned by the family of an elderly farmer, whom my dad neighboured well with, and who I loved like an uncle. The land, part of the Northeast quarter of Section 16-Twp 76-Rge 6-W6M, is located in about the center of the South Peace area of Northwestern Alberta about forty-five minutes north of Grande Prairie.

I loved that piece of land and have loved spruce trees all my life. I have lived next door to the woodlot for seventy-five years plus and have watched those trees grow intact for all that time. None of that parcel of land was ever cleared and had served as native pasture at various times throughout those years. I always hoped I would own this land some day, as I watched those beautiful trees mature. Ownership of the quarter section changed three times until it became part of the Nagel family farm in 2004. I finally owned my spruce forest!

For the next six years, while actively farming with my wife, Eileen, and son, Rick, my enjoyment of my forest was restricted to an occasional walk through with the family dog and any other interested person I could con into coming with me.

In about 2008-2009, the decision to sell Nagel Farms Limited - lock, stock and barrel, as the saying goes, was taken and so we had to find a new place to live in our retirement. After much consideration, Eileen and I decided we wanted to continue living in our home community. So, on a warm March day in 2009, we looked at the possibility of relocating across the road next to my beloved patch of spruce trees. That is where I sit right now, as I write, looking out of my office window in our new modular home. We went "homesteading" on our sub-division of about forty-five acres total, and are comfortable in our retirement, where I can enjoy my thirty-five acres of woodlot.

With us, from the farm, came a small crawler tractor, one small farm tractor, one larger tractor with loader and all the tools needed for starting a new life. Added, as time went on, were a new forty-horse tractor with cab, a grass mower and a loader and snow plow to fit. Also added were a small wood chipper, a buzz saw/wood splitter combination and with all that, a 1946 Willies Jeep with a winch on the front.

My time, since we moved here in November 2009, has been spent working to establish a home for Eileen and myself with visits of children, grandchildren and great grandchildren on special holidays and family events. This involves cutting grass, graveling the front yard and roads, some gardening, cutting down and cleaning up dead trembling aspen, cutting firewood in summer and fall, as well as building roads and creek crossings in the enchanted forest. In winter, I work at cleaning another part of that forest. Clearing windfall, unwanted undergrowth, thinning new growth spruce and cutting and chipping dead lower branches from mature trees.

The woodlot is located close to the Burnt River, which is fringed by growths of virgin forest, as well. This gives wild life the opportunity to seek shelter in my woodlot. We have been visited by moose, elk, the occasional bear, coyotes, red fox and even a marten. In winter, a small herd of white tail deer make their home here, where they can come out of shelter in the day time to feed on adjacent farmland. Snowshoe rabbits, squirrels, chipmunks, partridges, chickadees, ravens and blue jays also live in my forest with a bald eagle showing up once in a while.

The spruce has been the foundation of my survival on the farm and in my life for many years. I have cut them down and sawed them up in sawmills, large and small, in one place or another, in the winter months for some thirty years. The first year was 1949, in the Saddle Hills, south of home. It was a time when horses, steam power, the double bitted axe and crosscut saws still prevailed.

I could harvest my mature trees now, for financial gain, but I cannot bring myself to do it. I do harvest firewood (dead spruce and poplar), which I trade or give away in fall and winter. No shooting is allowed, except for dangerous predators, such as cougars, when necessary.

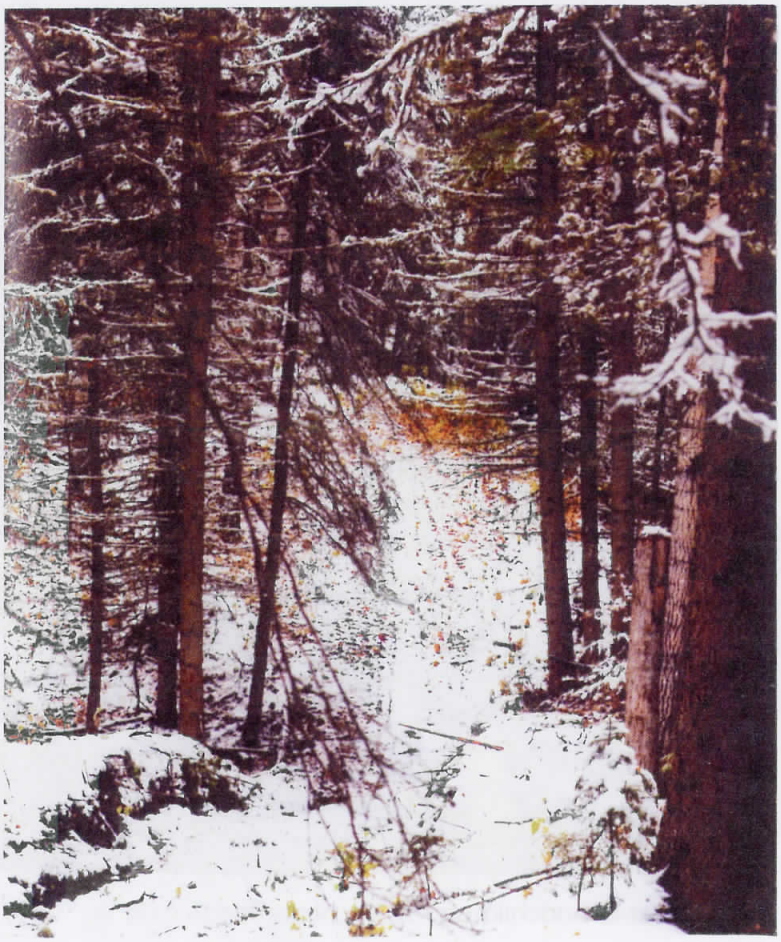
I enjoy my woodlot in many ways. Most importantly, I enjoy working in it for the joy of it and for exercise. Next, is taking my grandchildren and great-grandchildren for walks and rides in my Jeep and buggy, as well as anyone who visits Eileen and I, and is interested. We enjoy the birds and other wildlife that visit us occasionally. "Dozens of robins sing for us, all summer."

I enjoy my solitary walks in my woods, both in daylight and in darkness, with or without a headlamp. The peace and stillness is precious to me. That is when I do my "Forest Bathing." Thanks for the prefect descriptive term. I quote from the September 2016 issue of the Logjam, pages nineteen and twenty, and thanks for interesting and informative reading in every issue.

Hartmann Nagel

Photos of - Hartmann and Eileen Nagel's - Woodlot

The bench made from the woodlot trees, a great place to rest and listen to nature



Forest trail and creek crossing

The improved forest

Great-Grandchildren - in the home made cart