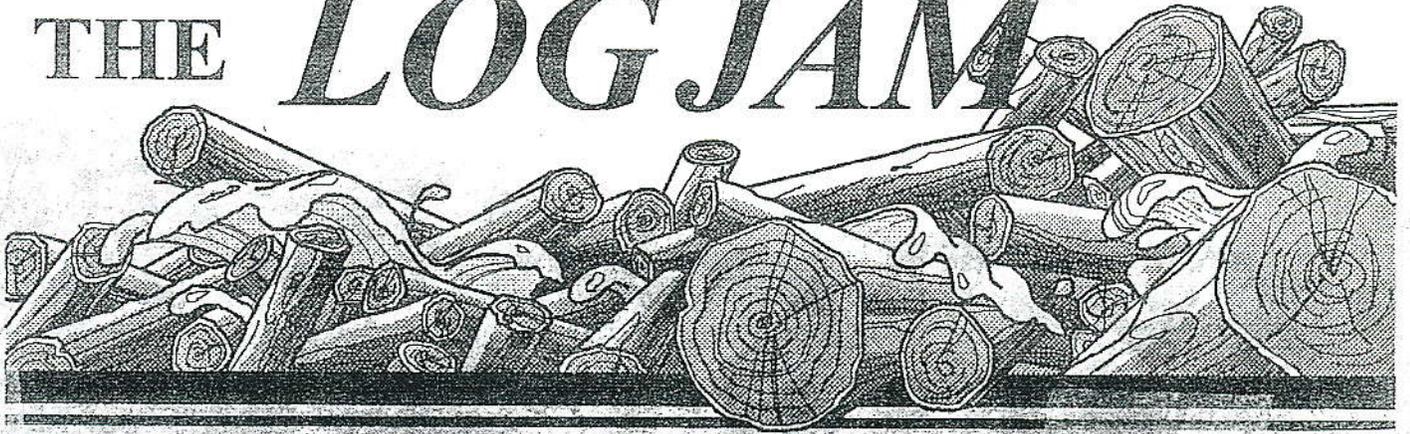


THE LOG JAM



Published by the Woodlot Association of Alberta (WAA)

June 2010

Blessing on the Woods

*Blest be the woods and they that dwell therein:
The scolding squirrel and his gentler kin
The friendly chipmunk and the timid hare:
Blest be the graceful mink, the shambling bear,
The beaver on his dam, the drumming grouse,
The hawk that loves the sky, the white-foot mouse,
The antlered buck that passes proud and tall,
The doe and dappled fawn, blest be them all!*

*Lord bless the woods for perfect loveliness,
For balm that heals the soul in care and stress!
Keep them forever fragrant, cool and sweet!
From thunderbolt and flame, from gale and sleet,
From avalanche, from torrent, drought and blight
From all that is unclean, from ruthless might
That gives desolation to valley, glen
And mountainside, God bless our woods!. Amen.*

Excerpt of a poem by Arthur Guiterman

Update on 2010 Seedling Distribution Program

A letter has gone out to landowners who responded to our initial survey in December and requested spruce and/or pine seedlings at \$0.25 each, planted on their property. The waiting list for seedlings is continuing to grow and many of those listed will also receive a letter if seedlings become available due to refusal of first responders. We hope to establish this as an annual program, perhaps including other species and accessing additional sources of funding. We believe this is a service to our environment as well as to our members and, as some of you have expressed, Why in the world would the government not support this kind of activity? Perhaps each of our members could give your local MLA a nudge in this direction. This year's program, as last year's, is funded through FRIAA's (Forest Resource Improvement Association of Alberta's) Forestry Worker Employment Program. FRIAA is a not-for-profit association of forest industry companies.

The WAA's role in this seedling distribution program is to provide administration and logistics by acting as our participating members' agent for the delivery

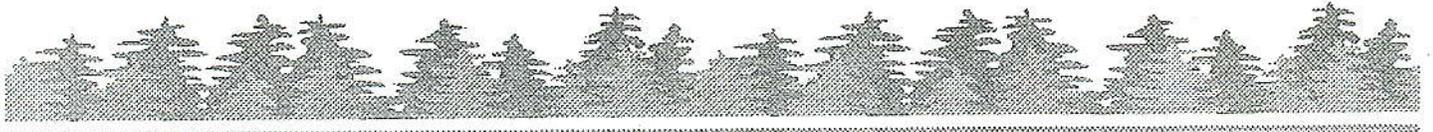
and planting of the seedlings. This service is being provided in a volunteer capacity to fully paid-up members of our association only. An agreement form was enclosed with the letter to be signed by each participating landowner, authorizing the WAA to act as his/her agent in entering into contracts for organizing and administering the delivery and planting of the seedlings.

In addition to this, the landowner by signing agrees to:

- Pay \$0.25 per seedling on or before the due date
- Allow for seedling species substitution as needed due to any factor;
- Be responsible for taking delivery of the seedlings;
- Perform any site preparation that the landowners desires at his/her own cost;
- Provide safe access to the property and clear identification of the area to be planted

The landowner by signing also acknowledges that post-planting care of the seedlings is his/her own responsibility and agrees to carry adequate general liability insurance coverage (suggested \$2,000,000), and to waive any claim against the WAA in respect of damage due to the actions of the planters.

For further information contact WAA Directors or Louise Horstman at (780)939-5858/ email pecaninc@interbaun.com or Pieter van der Schoot at (780) 696-2436.



Potential Influences of Climate Change on Forest Pests in Alberta

Herb Cerezke

The most recent Intergovernmental Panel on Climate Change reports published in 2007 indicated that global mean average temperatures have risen 0.74o C during the past 100 years. In Canada, this increase has been even higher, about 0.9o C, with the greatest warming trend occurring in western Canada. The scientific community suggests that this warming is most likely driven by increased levels of greenhouse gases that have accumulated in the atmosphere, the most important of which include CO₂, methane and nitrous oxide. The accumulation of these gases trap the sun's heat causing a warming or "greenhouse effect". Coincidentally with the increased warming are a number of other climatic trends that have also been observed occurring in Canada. These include: a warming in all seasons, especially winter and spring; a lengthening of the growing season and frost-free period; higher daily minimum and maximum temperatures; increased rates of evaporation and evapotranspiration, that result in increased soil temperatures and decreasing soil moisture; some seasonality changes in precipitation pattern and a decrease in winter and early spring snow depths. All of these climatic

changes are predicted to influence the life cycles and development of forest insect pests, either directly or indirectly, and to also have an impact on the health of forest trees and tree-pathogen interrelationships.

For insect species, temperature is the dominant climatic factor affecting insect life cycle development, survival, distribution and abundance. Increased temperatures have the potential to affect the growth rate of life stages, dispersal, reproduction, mating and feeding behaviours as well as overwinter survival, and to influence predator and parasitic interrelationships. Some direct influences of climate changes can already be seen in the successful spread and increased survival of the mountain pine beetle in Alberta and its destruction of mature lodgepole pine forests. As a result of climate warming, this insect now has the potential to invade jack pine forests and to spread eastward into other provinces.

Another bark beetle species, the spruce beetle, develops outbreaks periodically that are driven by temperature in combination with major disturbance events such as storms and wind-throw trees. Mature

spruce weakened by drought conditions or from blowdown provide ideal breeding material for this beetle, which then may spill over to attack live standing trees. This scenario recently occurred in the Yukon where thousands of hectares of white spruce forests were killed by this beetle. Factors which aided in the successful killing of trees were a series of warm winters and hot dry summers in the 1990s and warmer temperatures that allowed a portion of the beetle population to complete its life cycle in one year, rather than the normal two years. This enhanced its rate of population expansion.

Increased storm and forest fire activity are predicted to occur in future years, which will likely lead to increased food and breeding material for a variety of wood borer species such as the sawyer beetle. It is therefore anticipated that these species will increase in abundance in the future in response to increased forest disturbances.

Climate warming may also have an effect on the major defoliator species such as spruce budworm, forest tent caterpillar and large aspen tortrix, by influencing more frequent, more intense and increased duration of outbreaks. Climate changes may also increase the risk of new pest introductions. It is reasonable to assume that individual insect species will respond in different ways to the

changing climate, and many of these responses will be complex and generally unpredictable.

In the case of tree pathogens and diseases, there is considerable uncertainty as to how forest pathogens will respond to climate changes. Some diseases may be able to occur farther north or exist at higher elevations, while others may take on new roles in ways they affect tree health and functioning. Because of expected increased drought conditions, and consequently more drought-stressed events, some diseases that cause root and stem decays, and fungi that cause branch and stem cankers, are likely to become more prevalent. It has been suggested that various interactions between the host tree, its pathogens and climatic factors will be strongly influential in determining tree disease establishment, development and spread. Diseases such as Armillaria root disease, tomentosus root rot, and red ring rot are likely to increase in incidence. Also, the incidence of hypoxylon canker disease may increase since it is partly influenced by drought conditions. The effects of future climate on other disease such as pine stem rusts are difficult to predict since moisture, wind conditions and temperature all play a role in the epidemiology of these diseases.

Presidents Message

Pieter Van Der Schoot

Sitting in front of the window staring at the rain coming down (7") in the last six weeks - making me happy. This is a lot better than searching the sky for signs of smoke or fire. It looks 2010, at least in Central Alberta, will be OK for moisture.

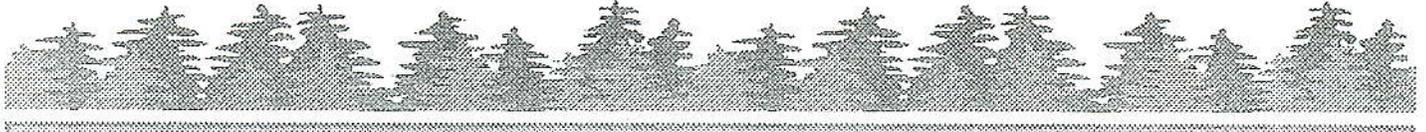
Another thing to be happy about is our FRIAA grant application was approved at the end of last week. So our 2nd year tree plant program is up and away. The letters for "request for payment" to our member landowners will be sent out shortly, including a waiver for liability. The trees will have to be planted in July, so please react promptly so we can hire the contractors to do the fieldwork.

I have a request to my fellow members. My plan is to write a series on bio mass and the measurements units used in heating and energy/ Please give me feedback as to what you would like in this respect.

Acronyms

In our written and spoken communication we are constantly assailed with acronyms these are not abbreviations, rather they stand for a long multi word title of some agency, function, or organization. There are some 4,000,000 acronyms worldwide; some acronyms are used in different parts throughout the world 40 or more times. Acronyms are fine if you know what they mean; we use them in this newsletter, therefore the following are some of the ones that you may find in the newsletter.

WAA -----	The Woodlot Association of Alberta	
CFS-----	Canadian Forestry Service	<i>this is federal forestry that mainly works on research</i>
SRD -----	Sustainable Resource Development	<i>this is the Alberta forestry service</i>
AFEX -----	Alberta Extension Network	<i>this is a partnership of novanait Boreal Research Institute, FPIInnovations, and Woodland Operations Learning Foundation (WOLF) that does forestry extension work</i>
FRIAA -----	Forest Resource Improvement Association of Alberta	<i>this is a board set up by the Alberta government that carries out certain forestry projects to enhance forests in the province</i>
AGM -----	Annual General Meeting	<i>this is the meeting any member can attend. It must be held once each year</i>
RISA-----	Resource Industry Suppliers Association	<i>this is an organization whose members provide goods and services to the resource industries: Bio Energy, Oil & Gas, Forestry & Mining</i>



Fire Smart Reduces Everyone's Risk

Laura Brandon

Alberta's beautiful landscapes and bountiful prairies contribute to the high quality of life that we value - but these landscapes include the dangerous reality of wildfires during the summer months. Travelling at speeds in excess of 10 km per hour, a fast-burning wildfire could threaten your home, property and livestock.

In Alberta, over half of all wildfires are human-caused and therefore preventable. In the case of grass fires, almost all of them can be traced back to the careless or irresponsible actions of individuals. By following FireSmart principles when burning, you can significantly reduce the risk of starting a wildfire that could damage homes or property.

"One of the most important things for farmers to remember is to ensure your equipment is free of any burnable debris, particularly around the engine and exhaust," said Herman Stegehuis, provincial FireSmart manager with Alberta Sustainable Resource Development (SRD). "That way, the heat generated from

those areas won't have a chance to ignite any dry grass, hay or other organic material that may have built up."

There are many other things to consider when trying to prevent a wildfire from occurring near your home.

A fire permit is required before conducting any type of burn during fire season (April 1 to October 31) within the Forest Protection Area. Permits are free and can be obtained from any local SRD office.

If you're planning to burn on a larger scale, for example large brush piles or whole fields, SRD can send out a representative to assess your property. "We work with property owners and farmer to ensure they have adequate fire guards, breaks between the fuel to be burned, and tilling that will help keep the fire controlled," said Rick Hoddinott, a wildfire technologist based out of Valleyview. "We want to make sure people have the right information so they can conduct a safe and successful burn."

When burning during the winter months, precautions still need to be taken and fires must be completely extinguished. Fires have the ability to burn into the organic layer of soil and smoulder for months underground. These "holdover" fires can then roar back to life in the spring when the weather warms up.

"Each spring we respond to several holdover fires that are a result of improperly extinguished winter burns," said Rod Houle, a provincial wildfire prevention officer with SRD. "As the temperature heats up and the fuels begin to dry out, these fires can flare up again and grow into large uncontrollable wildfires."

To avoid starting a ground fire, clear excess soil and dirt from the area where you want to burn. Most importantly, ensure the fire is completely extinguished by soaking it with water, stirring the ashes and soaking again.

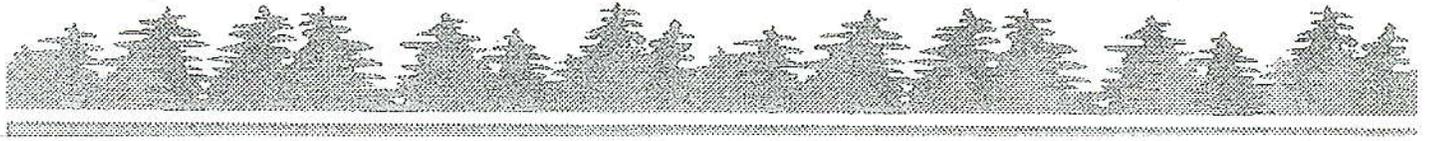
"A fire is completely extinguished when there is absolutely no heat emanating from the ashes," said Houle. "If you can't touch the ashes without getting burnt, that fire is

likely still burning beneath the surface."

Burn barrels are also common on many farms. While they can serve as a handy tool, burn barrels must be used with extreme caution. Before you light your next barrel, try implementing these FireSmart principles to better protect your property:

- Cover your barrel with a six mm (1/4 inch) or smaller mesh screen to keep any burning embers from escaping.
- Clear away all debris for at least three metres (10 feet) around your burn barrel to expose the underlying soil.
- Place your burn barrel at least 30 metres (100 feet) away from your home or any other structures, trees, or timber.

For more information on Alberta's FireSmart program and ways to protect your home from wildfire, visit the SRD website at <http://srd.alberta.ca/ManagingPrograms/PreventingFightingWildfire>.



Tapping into the Birch Syrup Industry

Husband and wife team, Mark and Lisa Ladd, own and operate a commercial birch syrup production facility near Peace River, Alberta. A preliminary inventory of their ½ section of mixed-wood forest indicates the birch stand population is large enough to sustain the production of birch syrup on a commercial scale. There are currently about a dozen commercial birch syrup producers in Canada.

Birch syrup is made from collecting and evaporating the sap from birch trees in the same manner in which maple syrup is collected and produced from maple trees. The main difference between the two sources is the sap to syrup ratio; maple is 40:1 compared to up to 120:1 for birch. This, combined with other production challenges and limited supply, is why birch syrup sells for three to six times the price of maple syrup.

Birch syrup provides a unique and flavourful agri-food product for the gourmet consumer. The flavour of birch syrup varies during the season and with exposure to heat during the evaporation process. It is often described as having a bold caramel taste and is not as sweet as maple. Birch syrup is used in

the much the same way in which one would use maple syrup; on pancakes, ice cream, or used in dessert dishes, sauces, and is especially good as a glaze for fish, meats and vegetables.

Birch trees are considered able to be tapped when they are they are 20cm in diameter at breast height (dbh). A typical 20 cm dbh tree is between 20-30 years old. Birch trees usually live 70-100 years. The trees usually begin deterioration around 70 years of age and those may only be tappable for 40-50 years. A birch sugar bush should be maintained with a variety of ages of trees for sustained yield.

Trees are tapped when the ground begins to thaw in mid to late April. The flow of the sap is through root pressure moving sap upward from the roots to the branches to the leaf buds waiting to flush out. The sap production rate varies considerably according to diameter size, crown size, aspect, elevation, and temperature. A single tree produces an average of 5-10 litres of sap per day over a 2-3 week period from mid-April to early-May.

Once the sap is drawn, the sap must be made processed within

24 hours or it will ferment. A typical operation involves collecting the sap in the morning, transporting the sap to the sugar shack and evaporating the sap to concentrate the solids, primarily sugar, through the removal of water. As the sap progresses through a sugar concentration gradient on the evaporator, the concentration increases from the initial 1% sugar to an intermediate concentration of 35-40% sugar.

At this stage, the partially concentrated sap can be cooled and stored for later processing or transferred to a finishing evaporator to reach the final desired 66% sugar concentration. Birch sap is more temperature sensitive than maple sap because

fructose (the primary sugar) burns at a lower temperature than sucrose, the primary sugar in maple sap. As the sugar concentration increases, the risk of burning the syrup increases so the finishing stage is completed on a propane or electric-heated evaporator to provide a more controlled and even heat.

The Ladd's produced 28.75 litres of syrup from 82 trees this year. They intend to tap up to 400 trees in the upcoming 2011 season, with the help of a reverse osmosis unit. For more information about birch syrup production or to purchase the product, contact Lisa and Mark Ladd at 780-624-1987 rafter86birch@hofmail.com.

The George Pegg Botanical Gardens

Dennis Quintilio

The George Pegg Botanical Gardens are located north of the community of Glenevis on Highway #43 and in the summer the public can enjoy a walk through the property and view many local and exotic plants and trees.

The Pegg family established a homestead near Glenevis in 1913 and George lived there for 70 years. He was a pioneer botanist and made major contributions to botany and to the province with his many first-time-in-Alberta identifications of plant species,

large library of botanical books, massive pressed-plant collection, plant findings that led to the theory of glacial refugia in the Rockies, and development of a unique botanical garden. As a result of George's involvement, the Flora of Alberta publication in 1959 was expanded by over 100 species and extended the known range of more than 50 species in Alberta. His additional legacy is the Botanical Gardens on the original homestead which are maintained by community volunteers.

The Woodlot Association Alberta volunteered to help with an early spring cleanup of 26 large trees that were felled or blew down on the grounds. We used light equipment and hand piling to minimize any disturbance of the garden environment, which is a summer attraction for visitors from around the world. Volunteers included Darrell Latimer from WAA office, Tozo Botic from Woodlot Extension Program, Peiter van der Schoot, Der Quintilio and Leanne Quintilio.

WOODLOT TOUR OF THE PEACE COUNTRY

SATURDAY, AUGUST 7TH, 2010
8:30am to 7:30pm

Pick up and drop off at the Lions Club Campground in Peace River

\$60* (includes bus tour, lunch and supper)
***WAA and AFEX members receive a \$10 discount**

A tentative listing of woodlot stops includes the following:

- **Peace Cherry Ranch**
 - Visit the home of John & Colleen Stewart where they planted 1000 Cherry, Honey/Haskap Berries, and Apples on their Berwyn-area farm to establish a commercial U-pick operation.

- **Rafter 86 Studio – Gourmet Forest Products**
 - Tour the birch sugar-bush along with Mark & Lisa Ladd where they harvest birch sap to produce birch syrup on a commercial scale.

- **Daishowa-Marubeni International Ltd. – Peace River Tree Improvement Test Site**
 - View the intensive aspen growth trials of DMI where they continually strive to improve the native aspen cultivars available for replanting.

- **Bar 2A Ranch – 2020 Plantation Site & Weberville Community Model Forest**
 - Tour the silvopasture planting site of spruce which is successfully grazed by horses. Learn about the Weberville Community Forest Project which is in the process of becoming the 15th member of the Canadian Model Forest Network.

- **North Peace Applied Research Association – PFRA Field Trials**
 - Walk the field trials of PFRA trees which were planted to demonstrate the hardiness of the current varieties available. Multiple deer-proofing methods are also being tested at the site.

- **Murdoch Lake Agro-forestry Demonstration Site**
 - An agroforestry research site established in 2004 to determine the relative productivity of conventional forage to alley cropping and afforestation.

- **The Carbon Farmer**
 - Meet "The Carbon Farmer", Brad Rabiey, and tour his Lodgepole Pine growth and maintenance trials and learn more about the current carbon offset markets and opportunities.

Contact WAA @ 780-489-9473 or by email to office@woodlot.org for more information

Space is limited, so register early!

Registration deadline is July 30, 2010.
(no refunds will be provided after this date)

Wanted

The Woodlot Association is in need of one of our members who has about average computer skills and some spare time (2-3 hours per week) to volunteer to update and maintain our website. Should you feel that this is just the thing to fill on your spare time, contact board member Bryan Anderson at skibadc@telus.net.

Contact, E-Mail and Addresses

Woodlot Association Office ----- #100, 18104 – 105 Ave.

Edmonton, AB T5S 2T4

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E-Mail: office@woodlot.org

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Website: www.woodlot.org

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Phone: 1-800-871-5680 or
780-489-9473

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Editor of Newsletter *The Log Jam*: Jurgen Moll

E-mail: jurgen.moll@xplornet.com

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Phone: 1-780-778-4272

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