



GREY COUNTY WOODLOT ASSOCIATION

... ON THE LEADING EDGE

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CHAIR'S CORNER

President's Update

Our Annual General Meeting scheduled for February 19 marks the end of another successful year for the Grey County Woodlot Association. Let me summarize this year's highlights.

The Membership Committee reports 151 members for 2004. Our Program Committee organized a tree identification hike, a very popular fern hike, the annual BBQ, a horse logging demonstration, a log sawing demonstration, an animal tracks hike and a very informative day-long technical seminar. In addition, we were again partners in the Grey-Bruce Woodlot Conference and our major undertaking for the year was as a stakeholder in an exhibit at the International Plowing Match held near Meaford in September.

The Woodlot Demonstration, one of the features of the Plowing Match, attracted more spectators than we ever expected – more than 760 people over the five days of the event. The theme was “A well managed woodlot is a valuable asset”. Our group provided assistance for 17 of the 20 shifts.

In April the Board met for a special planning meeting to consider direction and ways to make the organization more helpful to members. It recognized that the overall objectives set by the founding members were still valid and that, with the benefit of new information from member surveys, it was desirable to broaden the scope to reflect member interests in nature appreciation and recreation available from their woodlots. Accordingly, we will be asking

members to ratify a Board recommendation for an amendment to the Constitution.

Although our events and activities are the prime settings to provide practical information to members, the Board recognized that for many, it is not easy to attend such events, and so we explored better ways to communicate. The responsibilities of the previous Newsletter Committee were expanded and it was renamed the Communications Committee. A major new development from this group, a web site for the association, will be launched at the Annual Meeting. To provide financial planning and spending authority to the various committees, the Board decided that an annual budget should be set.

The Book Loan program continues to grow with 50% of available books now out on loan and four new books added to the collection. A small group has been formed to set up a tree registry for the association. Our financial situation is in good shape. Details of the program of events for the new year will be announced by the time of the Annual Meeting.

It has been a privilege for me to serve as your President this past year and I take this opportunity to thank the Directors for all their hard work, our members for their support and active participation in events and the volunteers who came forward to help with the woodlot demonstration.



Grey County Woodlot Association Fall Seminar

by Carl Sadler

The fall seminar was a huge success, over 30 people braved the worst storm of the fall.

The first speaker was Ken Goldsmith, Bruce County Forest Technician and By Law Officer speaking on the new Tree Cutting By-Law for Bruce County. One of the main reasons for the new By-Law was to address the north Bruce Peninsula where no By-Law existed. The new By-Law allows landowners two choices; either you use the diameter limit which allows you to cut certain sized trees to a minimum diameter on the stump or you can use Good Forestry Practices, which allows woodlots marked to a minimum basal area of 20m/ha across all the size classes. The public and logging groups have embraced this new By-Law and very few complaints have been received.



The second speaker was Steve Bowers from the Huron Stewardship Council. He is building case studies for sustainable management on private woodlands - an excellent report and you can read a more detailed report of his findings on page 6 of this newsletter.

The next speaker was Richard Wilson a Forest Pathologist from the Ministry of Natural Resource. Richard introduced the subject of Beech Bark Disease and its management, which was of great interest to many woodlot owners. Beech Bark Disease is not new to Canada. It was imported from Europe into Nova Scotia in 1890 on ornamental beech trees. By early 1930's it had spread across the Maritimes and eastern Canada. Very little is known about its location in Ontario. An intense study is presently being undertaken to examine its location.

The scale insect itself does not kill the trees. It uses the trees as a food source by sucking the sap out. Then it uses a white waxy

covering to shield itself from its enemies. The necrotic fungi infects the wounds on the tree and eventually kills the tree. It is usually 3 - 6 years behind the scale insect.

Tree mortality in Pennsylvania had the first wave kill 50% of the larger beech trees, 10 inches diameter breast height or larger. Another 25% lived but were infected with the necrotic fungi. Another 25% escaped the scale infestation or were at least somewhat resistant.

As far as management is concerned, Richard indicates that well managed woodlots may not be as severely infected, but suggest that severely infected trees be removed.

The final speaker was Jim Eccles from Lands and Forest Consulting. Jim's topic was a new program produced by the Ministry of Natural Resources in North Bay district. The program shows how many years after a harvest it will take to replace the depleted basal area. It shows that excessive damage to residual stems will delay the next cutting cycle. In our area of Grey Bruce after the basal area is reduced to the ideal of 20m/ha it will take 14 - 15 years to get back to the 28 - 30m/ha for the next harvest. This new tool can predict the next harvest of any stand.

Everyone left the full day seminar with lots of new and interesting information.

Great Environmental Symposium by Paul Cook

In November I represented the Grey County Woodlot Association at the Latonnell Conservation Symposium held in Alliston as recipient of a grant by that organization. This annual event is hosted by Conservation Ontario and the University of Guelph and is a very large and well-organized meeting for anyone interested in our environment. This year there were 175 speakers for the two and one half day proceedings with many concurrent sessions and an attendance of more than 800. In addition to the presentations there were display stands by many organizations and poster sessions by students.

The assembled group had presentations from Ontario Ministers Leona Dombrosky (Environment) and David Ramsey (Natural Resources). It was a good learning experience and provided an opportunity to communicate with other organizations. I learned that our's is not the only woodlot association whose members consider recreation, conservation and nature appreciation as the most important aspect of owning a woodlot.

I was impressed by the number of young people as speakers, the quality of their presentations and the predominance of young women taking leading roles. You will be interested to know that one of the main organizers and a member of the Steering Committee is Peter Mitchell, one of our Directors.

Anyone who would like access to the proceedings can find them at www.latornell.ca.

UPCOMING EVENTS

Annual General Meeting

Saturday, February 19, 2005
10:00 a.m. – 12:30 p.m.

Guest Speaker – Scott Reid, MNR
Bracebridge

Scott will talk about the benefits of tree marking and the Tree Marking Certification Course.

The Business Meeting will follow our guest speaker. As part of this meeting, there will be a financial statement, a Member's Forum, some proposed Constitutional changes, and election of the Board of Directors for 2005.

Hope to see you there!

2005 Grey-Bruce Woodlot Conference & Tour

Saturday, April 2nd,
9:00 a.m. – 3:30 p.m.
Sunday, April 3rd,
1:00 – 4:00 p.m.

The Woodlot Conference is always an informative and worthwhile event. This year's conference will include topics on Forest Ecology, Wildlife in your Woodlot, updates on the Managed Forest and Conservation Land Tax Incentive Programs, Marketing Forest Products, & a Landowner panel talking about their properties.

On Sunday afternoon, there will be a field trip to look at the practical side of woodlot management.

Come out and enjoy!

Forest Harvesting in Finland

by Sulo Lehtinen

My wife and I have a white pine, Norway spruce and white cedar plantation in the Township of Southgate that is now 16 years old and progressing well.

Even on holidays, we look at other people's forests to see what kind of trees they are growing and how they are managing their forests.

This past August, we went on a two week visit of relatives in Finland and drove a rented car 2,800 kilometres. We saw several of my 44 first cousins, some interesting growing towns, a booming economy and a lot of well managed pine forests.

Lumber, paper, forest products, and manufacturing of forest harvesting and processing equipment are a very important part of the country's economy. For this reason, the forests are very well managed to sustain an ongoing crop of trees.

Our trees in Ontario are mainly cut down and limbed manually, but we are starting to turn toward machine harvesting where one man can cut down trees, de-limb them, and pile them in piles of 6, 8, 10 footers or whatever is required. This machine harvesting is more productive and more economical than manual cutting, but it does reduce the number of workers required.

In Finland, around 80% of tree harvesting is done using mechanical harvesters. I had the good fortune to visit a plant where they made tree harvesting equipment, and the owner took me to a nearby location where a harvesting machine was working. It was a thing of beauty to watch as the tractor moved to a tree, and the harvester grabbed the tree at the base, and cut it off very low on the stump. Then the operator turned the tree to a horizontal position, and the tree de-limber's four knives move along the tree, cutting off all the branches to a trunk diameter that has been entered into the computer. A saw blade cuts off the top of the tree and tosses it aside. Then the traction motors draw the tree trunk through the harvester, and it is cut to predetermined lengths. The tractor then moves on to the next tree and the operation is repeated. The whole process of taking down the tree, de-limbing it, cutting the trunk into predetermined lengths, and piling up the cut logs only takes a couple of minutes. This equipment can cut marked trees as it progresses through the forest or go up a row of trees to thin out a plantation.

I was really impressed with the thinning model which can be operated by a 70 HP farm tractor. It can cut trees to a diameter of 300 mm, de-limb to a diameter of 250 mm, has a 14 inch sawbar, and can handle trees to a maximum of 400 kg.

It sure would be nice to have one of these harvesters.

For more information, contact Sulo Lehtinen at (519) 923-5565.

Remember
*Put **www.gcwa** in your browser!*



RETIREMENT !!!!!

Joe Watson

Stewardship Coordinator
Grey County Forest Stewardship Network
Member of Grey County Woodlot Association Executive

Born and raised in Owen Sound. Interest in forestry started through Scouts and watching the "Forest Rangers" on TV

Formal forestry education
Algonquin College - Forest Technician
Algonquin College - Industrial Logging

1974 - 1975 worked for industrial logging companies in Northern Quebec and Thunderbay

1975 - 1979 worked for MNR in Owen Sound as a Forest Technician, mainly tree marking, tree planting and forest fire control

1979 - 1995 worked in Pembroke as a Resource Management Technician
- Crown and private land forest management
- Fire management
- Parks & recreation
- Liaison with community groups

1996 - 1998
- started with the "NEW" stewardship program originally called the Private Land Forest Stewardship Program as a Stewardship Coordinator for Dufferin County working out of the MNR Midhurst District office

1998 - present
- Stewardship Coordinator, Grey County

Joe is retiring Feb. 28, 2005 after working 30 years with MNR in resource management, to explore his wood working expertise and get in all the summer sailing he can. He not only brought the Woodlot executive enormous experience and skill, but boundless energy and will be greatly missed by all of us.

An RSVP retirement party will be held on March 10th 6pm on the Chi Cheemaun. Cost is \$25/pp (not including gift donation) payable to Craig Todd and sent to:
MNR 1450 7th Ave. E.
Owen Sound Ont. N4K 2Z1



!!!!!!ANNOUNCEMENT

This announcement brings both congratulations and a sense of regret from the Woodlot Association.

Like the one for Joe, we will be losing some of the services of a valued Executive member. The essentials of the matter are recorded below in a letter issued to the logging companies from the Corporation of the County of Grey.

Re: Forest Management and By-Law Enforcement

The County of Grey recently approved agreements in partnership with the Grey Sauble Conservation Authority whereby the management of the County Forest lands and the enforcement of the County's Forest Conservation By-Law 4129-04 have been contracted to the Grey sauble Conservation Authority.

As of February 1, 2005, Mr. Carl Sadler of Grey Sauble Conservation Authority will be assuming the duties previously administered by Frank Beirnes and John Lambie.

The drawing above pictures a man running in two directions. We know that Carl will have major responsibilities in his new job but we as an Association will continue to highly value whatever time and expertise he can share with us - stretching him between two jobs.



The Pit and Mound Method

In old forests that have never been cleared for agriculture or heavily grazed by cattle, pits and mounds form a vibrant part of their ecology and hydrology. Pits and mounds are created over time by the action of uprooting trees over centuries of disturbances from storms. Mature forests are always recreating pits and mounds. Physically, pits and mounds are able to buffer precipitation by catching snowmelt and sudden rainfalls. Without pits and mounds, forests would lose much of the water to runoff, and therefore dry out quicker. When water is washed into pits, it can be stored for use in drier periods of the year, as when when evapotranspiration rates are high in summer. Without pits, the site sheds water fast, and stresses local waterways with flash flooding. Pits help store precipitation on site and rid the water via evapotranspiration and slow infiltration into ground water. The mosaic of varying moisture regimes and aspects through a pit and mounded forest allows for a very high diversity of plants to survive. Everything from wetland plants to those that require well-drained soils can find a niche. In a small area, moisture loving Spicebush and Skunk Cabbage can grow close to plants that prefer well-drained soils such as White Oak and White Trillium. In wet forests, or forests with heavy clay soils, standing water in pits becomes an important breeding ground for amphibians. Many other wildlife species will also benefit from this including heron species, American Woodcock, and other woodland wildlife.

Mathis Natvik, an ecologist working in southwestern Ontario is pioneering a new approach to reforestation: by first recreating the pit and mound topography on the site. In one of the first such projects, at Clear Creek on the north shore of Lake Erie, Mathis hired a bulldozer operator and took him into the forest to teach him all about pits and mounds. After being enlightened about the benefits, the operator completed the most artistic job he had ever done, transforming a former soybean field into a landscape of craters and hills. This was just the effect that centuries of storms would have had on an old forest (minus the trees). The project was inexpensive at \$112 per acre, much cheaper than an ash/maple plantation which costs about \$1,500 per acre to establish. Volunteers joined to plant the mounds with tulip trees, several oaks, black cherries, flowering dogwoods and many other species. Willows, spicebushes and silky dogwoods were planted along the edge of the pits.

When constructed in forest restorations, pits and mounds help to speed up natural succession and natural seeding from trees. Most reforestation sites are bombarded with seeds from bird droppings (eg. Cherries, dogwoods, sumacs, viburnums), from wind (eg. maples, ashes, willows, poplars, elms), and from squirrels (eg. oaks,

hickories, walnuts, hazel). But, smooth fields dry out too fast in the spring to ensure the successful germination of many woody plant seeds. Pit and mounded fields stay moist well into the summer, long enough for newly germinated seedlings to survive. The Clear Creek forest restoration is thriving with tree establishment and growth surpassing any of that in conventional reforestation. Mathis is convinced that in pit and mound projects, natural seeding and germination far outweighs anything planted by humans.

Summary of Benefits of Pits and Mounds Used in Reforestation Projects

- Pits trap water from snow melt and heavy rainfall, and store the water for future use by trees, wildflowers, and wildlife. This helps buffer flooding into adjacent water ways and naturally budgets water on the landscape. The natural hydrological functions of real forests are restored to the site.
- Pits trap organic debris blowing in the wind including tree leaves, crop stubble, and weed stalks and start building soil fast (also a high level of carbon sequestration which fights climate change).
- Mounds provide dry, well-drained locations for trees to establish, especially in low, flood prone areas. Many hardwood swamps depend on mounds of uprooted trees to continue forest cover on the site.
- Pits and Mounds encourage diverse natural regeneration and rapid ecological succession into a forest. Squirrels plant nuts in mounds. Birds land on mounds and release seeds in their droppings. Wind blows seeds into pits of poplars, willows, soft maples, and elms. This pattern continues in the future with woodland flowers and all the other diversity associated with old growth forests.
- Amphibians have temporary pools of water in the spring for reproduction.



Carl Sadler at the International Plowing Match woodlot



BUILDING A CASE FOR SUSTAINABLE MANAGEMENT OF PRIVATE WOODLANDS

(From a presentation by Steve Bowers at the Technical Seminar, November 25, 2004)

George Barrie and his son Sandy, grow the usual southern Ontario crops of corn, soybeans and wheat and raise some livestock on their 250-acre Cambridge-area farm but the best profit per acre, George says, comes from their 45 acre hardwood woodlot. The Barries sell firewood in the fall, make maple syrup in the spring and cut small lots of timber during the winter and produce more return from their trees than their cleared land. The farm sits on Dumfries loam soil that is somewhat gravelly. Maples grow well on it. The light soil is prone to drought and Sandy says over the last few years both crops and trees have been affected by dry weather. Besides the hardwood forest, a 12-acre area of fragile soil was reforested with red pine and black walnut in 1968. Another three acres of fragile land was reforested with black locust as a nurse crop for black walnut under the National Soil Conservation Program in 1992.

For the Barries, the number one management objective for their woodlot is income. There are three main sources of income; sawlogs, fuelwood and maple syrup. Their maple syrup operation has about 1,100 taps with most of the syrup being sold right at the door. With 22 taps per acre, at an industry-average estimated yield of 0.8 litres per tap and a \$5 profit per litre, they average \$88 profit per acre.

Most of the time the Barries do their own logging. "Because we have a firewood market, we can pretty well harvest trees one at a time, harvest the logs and clean up the tops for firewood," George says, "It's pretty well an annual process that we have logs to sell and firewood." Over the last 10 years they have had timber sales of \$108,000 from their 45-acre woodlot for about \$216 annual income per acre (not compounded to present value).

George's advice for any woodlot owner is to hire a consultant to help decide which trees should be cut and to get competitive bids. As an example he points to 50 trees they offered for sale in 2001 with the resulting bids ranging from a low of \$24,600 to a high of \$38,570. The few dollars spent on a consultant could bring a huge return, he says.

They sell 150-200 face cords of wood a year. "It's directly proportional to the amount of work we want to do," Sandy says. Firewood sales have averaged \$26 per acre over that 10-year period. All sources of income from the hardwood woodlot add up to \$330 per acre per year (i.e. \$88 + \$216 + \$26) (not compounded to present value).

There are low input costs for the woodlot, unlike the cashcrops. Trees reseed themselves and don't need to be cultivated, fertilized

or sprayed with pesticides. The family does their own labour. An added advantage from the woodlot is that prices remain more stable than for fieldcrops such as soybeans. There's also more flexibility in deciding when to sell. Unlike livestock that must go to market when it's ready no matter the price, trees can be left to grow another year or two if prices aren't favourable.

George, who farms with his wife Gwen, has developed a greater appreciation of his woodlot over the last 35 years. "Trees are a crop," he says. "You have to have a long-term outlook but I'm kind of amazed at the income we're getting from the woodlot," George says. "I never suspected there was that much in it." Over the years the return on an investment in a good woodlot will out-pace mutual funds, Sandy concludes.

Comparison of Returns:

The economic analysis indicates the Barrie's have generated a total (in present value terms) of \$153,838 in revenue from timber sales, while costs were about \$8,715, resulting in a margin of \$145,123. The Barrie's have 45 acres of woodland that were used in these calculations, so their total earnings were \$3,225/acre. The Barrie's also generated \$599/acre in fuel wood sales since 1994 and \$2,468/acre in maple syrup sales since 1987. (All values in 2003 dollars and a 5% compound rate.)

Following analysis of all sources of income from the Barrie's woodlots, the total earnings were determined on a per acre basis over the last 27 years (1977-2003). The Barrie's have generated between \$6,292 and \$9,284 per acre for the combined revenue from timber, fuel wood and maple syrup sales depending on the compound rate applied. By comparison, the agriculture rotation generated between \$2,927 and \$6,238 per acre.

The results of this analysis indicate that the Barrie's were able to generate substantially more revenue per acre from 1977 to 2003 with woodlot management than a typical cashcrop rotation in Western Ontario. At the various compound rates the difference between the woodlot management and crop rotation ranged from \$3,365 (53% higher for woodlot) to \$3,046 (33% higher for woodlot) more per acre.

The analysis does not attempt to place a monetary value on the many other woodlot benefits such as site protection, contributions to water quality or groundwater recharge, opportunities for recreational use, etc.

Questions or comments? Contact:

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