The Prairie Arborist

The Official Publication of the ISA Prairie Chapter Issue 4 2021

Cover Photo by Keith Anderson

FROM THE PRESIDENT


Toni Newsham
President

I'm sitting at my kitchen table (a little sleep deprived from early morning kiddos) watching the wind rip through our back yard, taking the last remaining leaves off the Trembling Aspens and realizing that I can now see my neighbour's yard.

During the summer months, I hardly feel the ever-watching eyes of town due to the number of professionally planted and cared-for trees by the previous Arborist (thanks, Dad!). So as these trees mature and start to show their age, my husband, Daniel, has started growing his own nursery in our home with trees to add to our yard.

It's been a fantastic way to teach our boys about growth and continually caring for something we have taken responsibility for.
So from that little tangent...I want to thank you, the Membership, for putting your trust in me to be responsible for the tasks that I have chosen to take on. I hope that I can fulfill some goals that the Prairie Chapter has and may create in the next couple years along with your elected board.

I want to say thank you to our past President Bonnie Fermanuik, former Secretary Treasurer, Jean-Mathieu Daoust and Saskatchewan Director, Derek Barr. These people brought great insight and expertise to the Prairie Chapter, and I hope they won't stray too far from the board.

But WELCOME to our new Director for Saskatchewan, Tim Yeaman, Director for Alberta, Andre Savaria, and returning member, for Secretary Treasurer, Mimi Cole!

So a little of my background. I am first and foremost a wife and mother, and currently at home raising my two boys. I'm backed by an encouraging husband who is in the Landscape industry and he often brings a different to point of view to my Arboriculture background.

My ISA Certification and TRAQ stay up-to-date and one way I achieve that is by teaching an online Arboriculture course in the Prairie Horticulture Certificate for Olds College. When I can, I do enjoy a few hours caring for a few clients' trees in my hometown as well!

The Prairie Chapter Board strives to meet face to face twice per year (in addition to monthly ZOOM meetings), with our first face to face coming up in January. The last couple have been Covid Cancelled and I have
hope we will make it happen this year; who else is tired of Zoom? At this meeting we review the budget, start planning for the year's events, and review any information that has been brought to us by the membership or the ISA head office.

On that note, please always feel free to contact me, our Executive Director, Keith Anderson, or your Provincial Directors with any information, concerns or ideas that you believe might be valuable to the membership.

We want to hear from our membership!

Arborists, horticulturists, hunters, and outdoor folks couldn't have asked for a longer (more vibrant) fall on the Prairies! Especially when considering the excruciating times our neighbours in B.C. have experienced and we keep them in our thoughts and prayers.

Enjoy and be thankful through our winter season & Merry Christmas!


Daniel, Toni, Leif and Declan

Save the Date

Certification Exam

There are no paper based exam opportunities available at this time.

All Arborist Certification candidates are encouraged to write their exam on line

Apply for eligibility here:
https://www.isa-arbor.com/Credentials/Apply-Now/Apply-for-Eligibility

Enroll to write the exam here:
https://www.isa-arbor.com/Credentials/Apply-Now/Enroll-to-Take-Exam

TREEVIA—The Penny by Alexander Martin

Have you ever taken a good look at the maple leaves on the Canadian penny?

Truly there is nothing more Canadian than the maple leaf. Canadian travelers don their backpacks with Canadian flags; Canadian sports teams display the maple leaf on their jerseys.

The penny, when it was in circulation, was the only Canadian coin to feature the maple leaf. The design was made by G. E. Kruger Gray, a British artist, in 1937.

The penny features an alternate leaf structure, biologically incorrect compared to the *Acer* genus' phyllotaxy. Oops!

Save the Date

Tree Risk Assessment Requalification

Did you know that you can now renew your TRAQ designation on line?
Its true.

You can register with any Chapter that is hosting an online TRAQ renewal.

For upcoming TRAQ renewal go here:

https://wwv.isa-arbor.com/events/eventscalendar/index?category=ISA+Qualification%20Renewal

For more information please call the Prairie Chapter office at 866-550-7464

Save the Date

The Prairie Chapter is planning a live Conference to be held in St. Albert, AB October 17 & 18 2022

Managing Growth, Limiting Liability,

Don't miss this long overdue opportunity to network and bump elbows with your Fellow Arbs

More information to follow as the planning unfolds

ASCA's Tree and Plant Appraisal Qualification (TPAQ)

This course is being revised.

There are no workshops available this time.

The 2022 Prairie Chapter Tree Climbing Competition

is being planned for August 27, 28 in Regina, SK.

Wont it be great to be back to normal?

Peter LaRue, Vice President

A production climbing Arborist since 2006, Peter LaRue got his feet off the ground and into the canopy working in Edmonton, Alberta for Chipps Tree Care, Inc.

6 years ago he and his wife, Krista founded LaRueTree Certified Arborists, Inc. just outside of Vegreville, Alberta, specializing in production tree work in a rural and urban setting, and consultation services.

Together they raise their 2 sons, Colt and Gauge, manage the growing company, and also tend to their small hobby farm. In all of his spare time, Peter trains his owns horses and working sheepdogs, using both to help out where needed at local ranches.
As a Climbing Arborist, Peter has travelled and worked in the hardwood canopies of Southern Ontario to the majestic Conifers of the West Coast of British Columbia. Peter moves from his position as Director for Alberta to Vice-President, and is looking forward serving the Prairie Arborist community for years to come.

Mimi Cole Secretary Treasurer

Hi, I'm Mimi Cole.
I'm currently working for West Fraser LVL, and do consulting for trees on the side.
I live in Rocky Mountain House with my dog, Mollie, the best GSD in the world.

I strongly believe in the mission of arboriculture and am thrilled to be back on the board. To me, all of our members ARE our greatest asset and we want to hear from you.

Thank you

Matt Vinet, Director for Manitoba

As an Arboriculture consultant, Matt brings over 25 years of urban forest community engagement, management and front line service delivery experience.

Matt started his career at Green Drop Ltd. in 1994, working for Canada's largest privately- owned lawn and tree care company. Shortly after that he completed the Landscape Technician Apprenticeship program at Red River College, and completed his ISA certification. Following graduation, he has continued to work for Green Drop Ltd. for the past 25 years, where he has been helping communities and individuals across Western Canada appreciate the value, benefits and services trees provide.

Green Drop Ltd. works with clients looking for reliable management of their urban forest assets. Their clients include municipalities, businesses and organizations of all sizes and budgets. We believe in building, maintaining, and preserving our communities' urban forests through community involvement and outreach.

Matt has served as the Chairman of the Prairie Chapter Tree Climbing Competition since 2017.

Timothy Yeaman, Director for Saskatchewan

Timothy Yeaman started his career in Municipal Government in 2007 as a Forestry/ Horticultural Foreman with the City of North Battleford, SK.

In December of 2017 took on a new opportunity as Parks and Open Spaces Manager with the City of Prince Albert, SK and continues to serve in this position.
After close to 15 years of ser-

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vice at the Municipal Government level, his passion for community development and enhancing the natural beauty of the surrounding landscape through beautification projects, rehabilitation, and natural plantings continues.

He is passionate about changing Community through educational efforts and creating legacy building projects to bring community together.

Current passions of the job focus on the Little Red River Park, the Pehônân Parkway, Playground legacy building projects, Community Groups/Clubs, Forestry and Trail system development that helps to connect community with some of the best green space in the province.

Family is the most important of anything and is the reason for his passion in other areas with focus on doing well and finishing strong. With a beautiful and very talented wife of 24 years and two teenage daughters, life is always full of adventure and provides those moments of reasoning and balance between work and family life with focus on what is of importance.

For Tim, this work is not an 'end to a means', it is simply a reason to bring community and family together through practicing what we speak and giving back through skills, passion, generosity and encouragement.

Jacquie Butler, Director at Large - Alberta

I have been a part of the Horticulture Industry since I was a teenager growing up in Southern Alberta. After graduating from the Arboriculture Diploma at Olds College in 2000, I found myself in a landscape nursery setting for a few years before starting my family.

I started my Municipal Arborist career 15 years ago and have never looked back. It was during this time I was able to work with and learn from many great people in the industry. I found a passion for our Urban forests and take great pride in helping to make sure that future generations can enjoy the same benefits we receive today.

As a Certified Arborist, I have conducted and consulted on a variety of arboriculture practices and feel privileged to belong to such a great community. I have volunteered for various other organizations including communities in bloom, adult learning and a variety of sports and school organizations. I am looking forward to meeting new people and learning more about

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the ISA Prairie chapter. Please feel free to reach out to me with any questions.

The creation of a thousand forests is in one acorn
-Ralph Waldo Emerson

Andre Savaria, Director for Alberta

Andre is a Registered Professional Forester in Alberta (1991) and an ISA Certified Arborist (2011).

As the President of Ecofor Consulting Ltd (Edmonton) since 1997, he works with numerous commercial/ residential clients throughout Alberta. He provides expert urban planning solutions, conducts large tree inventories and offers tree care consulting advice /services for developers, builders and the City of Edmonton.
He has established large networks/partnerships with environmental specialists, horticulturists, master gardeners, engineers and architects. He is current with provincial/ federal legislation, municipal policies and urban planning best practices.
Andre continues to pursue and expand his understanding of tree growth/site interactions and effective tree preservation practices.

Google Image -Winnipeg Free Press

Trees that can be Weedy

By Wilbert Ronald

For the writer who has spent a lifetime developing and promoting prairie trees it would seem that it is sacrilege to refer to any tree as a weed tree. But I truly see some prairie trees as weed trees especially in the eastern prairies where I call home. If we can define a weed as an unwanted plant that is out of place, then we could rightly define a weed tree as an unwanted tree that is out of place.

Unfortunately, we have to admit to seeing quite a few trees that have grown up in the wrong places. The City of Portage La Prairie where I live has many weed trees particularly of boxelder maple which have grown up in fence lines, in foundation plantings and in spruce shelterbelts. The problem of weed trees is probably worse in the eastern prairies where trees such as boxelder maple, green ash and cottonwood poplars are widely native and many seed trees exist to shower the landscape with seed.

My note today is about educating people about these trees.

You may all have heard the term "invasive species" and would question how this term relates to "weed trees". Invasive trees are not always synonymous with weedy trees. Invasive trees are non native which naturalize into native stands. Weedy trees by my definition may be native or non native. They grow up in the landscape and harm the landscape and other trees that have been planted. An example of a species that is both invasive and weedy would be the European buckthorn, Rhamnus cathartica, a small tree or large shrub that 75 years ago was in common landscape use and now has become established in city parks in Winnipeg and Portage La Prairie. Fortunately, we have few invasive tree species in our region and we can be happy to still use both native and many valuable non invasive introduced trees that will grow and thrive in our cold northern climate.

Trees which we might all recognize as definite "weed trees" include introduced Siberian elm, native boxelder maple, native green ash and perhaps some poplars such as native cottonwoods and the introduced European white poplar which is prone to suckering. Most of these trees would all be characterized by prolific seed production or root suckering, well developed seed dispersal methods and tough strong seedlings which arise from seed that readily germinates. These trees grow up in landscapes, garden areas and often around the base of highly valuable spruce or evergreen shelter belts. They can damage other landscape plants, rob moisture and nutrients and compete with more valuable plants that have been planted.

How can "weed trees" be controlled or managed by gardeners and landscapers? Firstly, we can limit the use of these types of trees as we have done with Siberian elm, a once commonly grown species whose production has largely been discontinued due to its seediness. We can develop and use seedless ash, boxelder maples and poplars that have been developed by plant breeders. 'Prairie Spire' ash, 'Baron' boxelder maple and several poplars such as 'Prairie

Siberian Elm

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Trees that can be Weedy

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Sky', 'Sundancer', 'Assiniboine' and 'Okanese' are trees which do not produce seed. Unfortunately, the male seedless cultivars are not always available or the higher price point leads to seedling trees being planted, many of which will produce copious seed.

Nurseries can help by growing the cultivars that are not seed producing. Gardeners and landscapers can eliminate the weed seedlings that grow up in the landscape. Early removal is very easy when the plants are a year or less in age. A weed barrier and mulch may greatly reduce the number of seedlings which germinate among desirable plants. Sometimes however it is necessary that gardeners and arborists use a chain saw to eliminate "weed trees" that escaped early detection or trees whose seed are blowing into your yard and garden. For example, some eastern prairie saskatoon berry (Amelanchier) growers have been plagued by seedling "weed trees" growing up in their otherwise clean rows. Our advice is to remove nearby seed producing trees of elm, ash, boxelder and cottonwood. Our advice is usually greatly appreciated when growers see the change this makes in maintenance and production.

American Elm

Boxelder

In conclusion we can appreciate that we don`t have a lot of weedy tree species in our northern zones. By sharp eyes and timely care we can help keep a tidy landscape with the "weed trees" in check. That would be every orchardist, gardener and arborist's objective.

Wilbert Ronald
Jeffries Nurseries
Portage la Prairie MB

White Pine Weevil

Google Image Western Producer

By Toso Bozic

White pine weevil *(Pissodes strobi)* is a native North American insect that attacks native white pine in eastern Canada while in prairie provinces it only attacks spruce trees (white, Colorado, and Norway). The white pine weevil attack and injure terminal leader of spruce trees. In late June, affected new growth will wilt and turn into " shepherd's crook" shape. Needles at the beginning are yellowish but ultimately die turning brown and drop. As results of injuries from weevil, young white spruce trees reduce growth, get stunted and develop bushy appearance with multi-stems terminal leaders. Tree mortality from this white pine weevil is rare.

Pest ID

Weevil attack spruce trees that are less then 30 feet in height and exposed to full sunlight. White spruce trees planted in shelterbelts or small plantations on poor and unproductive sites are the most susceptible to outbreaks. The adult weevil is brown that looks like a beetle except they have a **long snout**. They are about 8 mm long. White larvae with brown heads grow 10 mm long and are found under the bark of the dying leader. Adult weevils overwinter on forest floor and make short flights early in the spring to disperse. Adults lay their eggs at the tip of the previous year's leader in May and early June. The white pine weevil prefers to attack trees exposed to direct sunlight.

Symptoms

Shepherd's Crook tips Photo by Toso Bozic

The damage is mostly occurring by larvae that feed under the bark of the white spruce terminal leader. Also entering holes made by mature weevil can cause terminal leader to break. By late June these are noticea-

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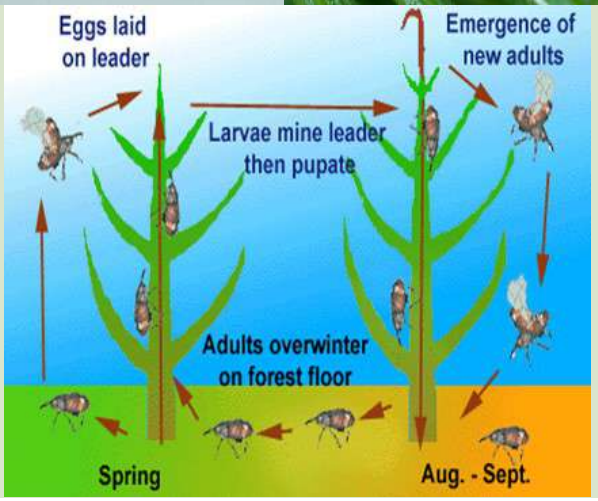
Images by Natural Resources Canada, Canadian Forest Service



White Pine Weevil

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ble symptoms that trees are under the attack of this insect:

- Most of the damage is caused by larvae and in trees less than 6 meters (20 feet) in heights
- new leader or top of the tree are showing signs of wilting/drooping and the needles turn yellowish/brown
- infected leader has very characteristic "shepherds crook" shape Hole along main stem of the trees

Dead Tips at 2 metres height—Photo by Toso Bozic

Management

There are very few management options for the control of the white pine weevil :

- Early detection is most important to prevent damage from the weevil. As soon as white spruce trees reach one meter (1m) in height you may perform regular check up for this insect.
- Pruning is probably the most effective method once weevil infest your trees. Pruning **must be done prior to the beginning of August** when larvae are still active in the trees and before emergence of new adult (Aug/ Sept).
- Remove "Shepard's Crook" immediately once you notice it or you notice holes in trunk earlier. Cut should be made back at the level of the topmost whorl of unaffected branches (where you don't see any holes on trunk).
- After you made a cut at the branch whorl – you may need to cut additional side branches leaving one to become future leader. This way you will avoid having two leaders on the tree.
- Consider planting non-host species OR planting a deciduous species mixture that will provide shading for the spruce trees.

Dead tips at 9 metres height - Photo by Toso Bozic

There are a very few chemical and biological products to successfully control this insect.

Our professional and experienced Tree Expert and ISA Certified Arborist offers a full range of consulting and advisory services to help you keep your trees healthy.

We offer Six Points Tree Pest Evaluation to identify and manage your pest issues

For more information:
Toso Bozic P.Ag
Tree Expert / ISA Certified Arborist
CERT ID: PR 5356A
Phone (780) 712-3699
bozict@telus.net
www.yardwhispers.ca or www.attsgroup.ca

Knives made from Wood that Rival Steel

From CBC's Quirks & Quarks
CBC Radio · Posted: Oct 22, 2021 5:25 PM ET

Scientists have found a way to harden wood to make a knife that rivals steel.

The process uses chemistry and pressure to make ordinary wood 23 times harder

Scientists have developed a process that allows them to manipulate wood to make it denser and harder than the natural product. They used the resulting material to make items like wooden knives and nails that rival traditional steel.

Teng Li, a materials scientist and mechanical engineer from the University of Maryland, told *Quirks & Quarks* host Bob McDonald that he and his colleagues made the wooden knife to demonstrate the new process they developed.
"Surprisingly, our wooden knife is actually three times sharper than the typical stainless steel dinner table knife," he said. "It can achieve its purpose of cutting medium well-done steak very nicely without breaking."


Picture by Bo Chen/University of Maryland

Their findings were published this month in the journal *Matter*.
Li added that the knife can be sharpened when it becomes dull, and even survive the dishwasher.

Improving natural wood

The process of making hardened wood is really quite simple, said Li. Wood gets much of its strength from cellulose, the substance that makes up the fibres of the wood.
Cellulose itself is a remarkably strong material, whose strength relative to its density is "higher than almost all the metals and alloys in the world," said Li.
But cellulose comprises only 40 to 50 per cent of wood. So the first step in developing a higher-density wood-based material was to reduce the components that weren't cellulose. In particular they targeted lignin, which acts like a kind of glue in normal wood, binding fibres together.
"We use chemicals to partially remove lignin. And after the first step the wood becomes soft, flexible and somewhat squishy," said Li.
"So the second step is that we apply pressure. We also increase the temperature. The purpose of that is to really densify the natural wood and also remove the water, reducing its thickness to around 20 per cent of the original natural wood."

The result is an incredibly strong material, comprised mostly of cellulose, that is 23 times harder than it was to start.
Microscopic analysis of the finished wood product revealed that the process had significantly reduced natural defects in the wood, collapsing space between the fibres, and even pores and tiny pits in the cell walls of the wood. The compressed material showed very little tendency to bounce back to its original thickness.

Wooden nails and truly hard hardwood floors

The success of Li's process suggests there are also applications beyond the dinner table.
"We also demonstrated that you can use these hardwoods to make nails as functional as steel nails," said Li. "We know steel nails rust over time. But the wooden nail won't suffer from this problem. And in our daily life, you see many hard materials, for example flooring. You can have this hardened wood over a large area that can be coated to reduce scratching."

Renewable and sustainable

There is also the possibility that wood processed in this way could replace existing products that are known to be harmful to the environment, said Li.
"I think there is huge potential to have these wooden utensils help mitigate the environmental concerns raised by the use of the plastic utensils. We developed a straw made of cellulose, which is biodegradable and with a comparable performance to plastic straws."
Li suggests that because natural wood includes the same components, cellulose and lignin, this process could be applied to wood from any species of tree.

"Trees are renewable and wood is sustainable," he said. "If we look back to mother nature, we can use this natural material toward a sustainable future."

Written and produced by Mark Crawley

Early Detection of DED — Final Report

Final Report for the Canadian Tree Fund Project
Conducted by:
The Society to Prevent Dutch Elm Disease (STOPDED)
By Janet Feddes-Calpas, STOPDED Executive Director

Project Tittle:
Targeted enhanced surveillance for early detection for the presence of Dutch elm disease or stock piles of elm firewood in rural Alberta municipalities reporting higher numbers of DED beetle vectors."

At present, Alberta has the largest Dutch elm disease (DED)-free stand of American elm (*Ulmus americana*) in the world. The province has 600,000 American elms valued at $2 billion. In order to keep Alberta DED-free, the Society to Prevent Dutch Elm Disease (STOPDED), a nonprofit organization, leads the development and delivery of Alberta's *Provincial Dutch Elm Disease Prevention Program.* Alberta American elms are not native, they either have been planted or are naturalized offspring of the planted elms.

Since 1975, STOPDED has been involved with monitoring throughout the province for the smaller European elm bark beetle (SEEBB) *Scolytus multistriatus* (Marsh), the native elm bark beetle (NEBB) *Hylurgopinus rufipes* (Eichhoff) and the banded elm bark beetle (BEBB) *Scolytus schevyrewi* (Semenov-Tian-Shanskij), all vectors of the DED pathogens Ophiostoma ulmi (Buisman) Nannf and *Ophiostoma novo-ulmi subs americana* (Brasier). Municipal and industry cooperators place sticky traps with dual component, pheromone/host volatile lures in rural and urban municipalities, tree nurseries, provincial and municipal parks and at Canada/US ports of entry. Monitoring for the beetles has been a key component to the DED prevention program and has been used as an indicator for the possible presence of DED.

The thinking in Alberta has been; in the absence of DED, the presence of DED beetle vectors could indicate a DED infection or elm firewood possibly harbouring the DED fungi. As with many invasive tree pest and disease species, elm firewood is a major threat for distance spread of DED and DED vectors.

The purpose of this project was to conduct targeted enhanced surveillance for early detection of DED, stockpiles of elm firewood and high risk elm trees in rural Alberta municipalities reporting higher numbers of DED beetle vectors over the past few years. Training sessions on how to recognize DED infected trees would be delivered to municipal staff in the targeted locations. The goal was to raise awareness of DED and vigilance in rural Alberta municipalities for DED that were experience higher numbers of elm bark beetles (EBB) on bark beetle traps, and to determine if there were any DED infected elms in these areas.

It should be noted that STOPDED has been re-evaluating the approach to DED prevention in Alberta. Specifically, whether there should be a shift in from the EBB monitoring program to direct surveillance assessments of the health status of the provinces' elm trees' and for symptoms of DED infection. Towards this end, STOPDED, in a separate project funded by the Society, contracted Dr. Ken Fry, Olds College to conduct an analysis of elm bark beetle monitoring program and to make recommendations. The analysis was completed in May 2021. The single most important recommendation from this analysis was for municipalities and counties to appoint and train inspectors/officers to survey elm trees health and enforce the statutes listed in the *Agricultural Pests Act* of Alberta. STOPDED and stakeholders are considering if there is still value in monitoring DED beetle vectors in the province of Alberta.

To date, SEEBB's which are native to western Europe, the Middle East, and northern Africa have been captured in low numbers annually throughout Alberta. The native range of the BEBB is northern China and southern Russia and was first detected in Medicine Hat in 2006 and has become established in the southeastern part of the province. The BEBB are now found in lower numbers in municipalities throughout the province. The NEBB which is indigenous to North America has not been captured in Alberta.

In 1998, Alberta had one isolated elm in a yard in the Town of Wainwright test positive for the DED fungus. The complete town and a two km radius of the town was immediately surveyed for more infections. None were found. Elm firewood brought in from Saskatchewan was implicated as the cooperative home owner admitted to bringing elm firewood into the province the previous year and had used it during the winter to help heat his home. Additional EBB traps were placed throughout the town and surrounding two km radius for five years after this incident and no EBBs were recovered from those traps. No other elm trees show any DED symptoms and it was subsequently determined that DED was eradicated.

In 2020, the City of Lethbridge had two boulevard elm trees test positive for the DED fungus. Surveillance for DED suspect elm trees and elm firewood was immediately conducted in a one km radius of the infected trees. No other infected trees or elm firewood were found. However, elm firewood is still considered to be the likely cause of the infestation. In 2021, this one km area radius was surveyed again along with an inspection of all 55,000 publicly owned elm trees in the City of Lethbridge. It has been determined that these two DED infected trees was again an isolated case for Alberta. In 2021 the city also hired two pest inspectors and is working on updating the city's elm inventory. An updated tree inventory is essential for the management of all tree pests.

Under the *Plant Protection Act* "Plant Protection Regulation" of Canada, the movement of both DED pathogens, *Ophiostoma ulmi* and *Ophiostoma novo-ulmi* are regulated. Elms from a DED infected province cannot be shipped to a disease-free province/territory. Alberta and British Columbia are the only provinces classified as DED-free. Alberta's DED-free status allows it to ship elm trees across Canada, a $50 to $60 million dollar a year business for the province's tree nursery industry. The ability to ship elm trees Canada-wide is contingent on the province's DED-free status.

Early Detection of DED— Final Report

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The relationship between the presence of beetles and DED disease introduction, incidence and spread is not completely understood. In jurisdictions such as Manitoba and Saskatchewan, that are actively managing DED, more effort is put towards DED surveillance and less on monitoring for the beetles as a tool to direct DED management efforts. Alberta had not routinely conducted complete DED surveillance. In 1998 Alberta received Federal funding to conduct a province-wide elm tree inventory. It was at this time, that the first DED infected tree in Wainwright was identified. Subsequent to this incidence STOPDED ramped up its DED prevention efforts with the focus being on monitoring for the vectors and working with municipalities to be aware of the status of their elm trees.

In the summer of 2021 STOPDED received funding from Canadian TREE Fund-Jack Kimmel Grant to complete an enhanced DED surveillance survey in municipalities and provincial parks that had captured higher, sustained numbers, of EBBs over the previous 3 years or that were locations close to Lethbridge. The enhanced surveillance was to determine if DED or if elm firewood was present. This was considered to be a valuable exercise because early detection of a new DED infection is important if the disease is to be eradicated, and to signal a shift to put more effort into surveillance of elm tree directly for DED symptoms.

Table 1. Number of DED beetle vectors captured (all were BEBB) over the past three years in locations selected for enhanced surveillance in 2021. Selection was based on higher numbers of beetle vectors captured on dual component lure sticky traps or trapping locations close to the City of Lethbridge.

Location Surveyed in 2021	2018	2019	2020
City of Brooks	86 BEBB	12 BEBB	15 BEBB
City of Drumheller	24 BEBB	15 BEBB	7 BEBB
Town of Oyen	6 BEBB	32 BEBB	25 BEBB
Town of Taber	192 BEBB	57 BEBB	172 BEBB
Village of Barons	1 BEBB	0	1 BEBB
Village Consort	141 BEBB	58 BEBB	10 BEBB
Hamlet of Cereal	65 BEBB	11 BEBB	29 BEBB
Hamlet of Diamond City	0	0	22 BEBB
Taber District Park	0	1 BEBB	1 BEBB
Park Lake Provincial Park	1 BEBB	0	1 BEBB
Tillebrook Provincial Park	10 BEBB	1 BEBB	101 BEBB

STOPDED contracted Living Tree Environmental, an Alberta based company that has conducted DED surveillance surveys for the Province of Saskatchewan over the past few years, to conduct the DED surveys in Alberta. Locations surveyed were the Towns of Brooks, Taber, Oyen and Drumheller, Village of Diamond City, Consort, Cereal and Barons, Taber Municipal Park and Park Lake and Tillebrook Provincial Parks.

Each survey included DED surveillance of all private and public elms by an experienced crew. This crew collected samples from symptomatic elm trees which were sent to the provincial lab for diagnosis. Data was collected on stored elm firewood and on standing elms that were considered high risk. These are violations under the Alberta *Agricultural Pests Act*. This Act gives municipalities the responsibility and ability to enforce the DED Prevention/Control Measures found at https://open.alberta.ca/publications/dutch-elm-disease-prevention-control-measures-responsibilities-authority-apa to the land owner. A report was supplied to STOPDED and to each municipality surveyed.

Table 2. Numbers of high risk elm trees, elm wood violations under the APA* and suspect DED samples identified by the survey.

Location Surveyed in 2021	High Risk elm trees	Elm Wood Stored	Suspect DED samples sent to lab
City of Brooks	2	5	0
City of Drumheller	0	2	0
Town of Oyen	0	0	0
Town of Taber	3	https://open.alberta.ca/publications/dutch-elm-disease-prevention-control-measures-responsibilities-authority-apa	
Village of Barons	1	0	0
Village Consort	0	0	0
Hamlet of Cereal	0	0	0
Hamlet of Diamond City	1	0	0
Taber District Park	0	0	0
Park Lake Provincial Park	0	0	0
Tillebrook Provincial Park	0	0	0

Early Detection of DED — Final Report

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***Enforceable DED Prevention Measures/Control Measures**

Section 5.b. Elm Wood Storage - prohibited at any time of year

Section 6. High risk tree is defined as a stressed tree that has deteriorated to the point of making it capable of supporting elm bark beetle habitation and breeding. There are many reasons why a tree may become a high risk such as environmental causes or improper pruning such as topping. If an inspector has declared an elm tree to be a high risk, the tree must be removed and properly disposed of.

To support municipalities with their DED prevention program, Living Tree Environmental conducted two workshops, in Taber and Brooks. Due to Covid regulations there was limited attendance. These workshops covered biology of DED and its vectors, DED symptoms, elm identification, how to take a suspect DED sample, review of Alberta Agricultural Pests Act (APA) and "Pest and Nuisance Control Regulation (PNCR)", DED Prevention/Control Measures and the roles of local enforcement officials. A total of 30 people attended the workshops which included Agriculture Fieldmen from 7 counties and parks employees from 3 municipalities.
All surveyed locations were sent an article which included the Canadian Tree Fund and STOPDED logos that explained the project for inclusion in their local papers and social media outreach.

With DED on the rise in Saskatchewan and the high risk of infected/infested elm wood being transported into Alberta this project indicated that more emphasis needs to be placed on DED symptoms and elm firewood surveillance. Monitoring for beetle vectors does not seem to be a good indicator of DED problem areas in this small study, nor has it alerted Alberta to incursions of DED into the province. Both incursions of DED into Alberta was identified by symptoms on the infected trees and elm firewood was suspected as the mechanism into the province. Movement of the disease from the firewood into adjacent elm trees still requires a vector and we can speculate that the EBB that was involved may have been destroyed with the removal and disposal of the infected trees or did not survive the winter to spread the infection further.

Monitoring for beetles requires a rethink. Surveillance of the health status of elms and elm firewood are arguably better uses of resources in the prevention and management of DED.

STOPDED is appreciative of, and acknowledges, funding received by the Canadian TREE Fund - Jack Kimmel Grant, the Canadian Agricultural Partnership, and Alberta Agriculture and Forestry, that made this project possible.

STOPDED

Time to Renew your Membership?

International Society of Arboriculture – Prairie Chapter

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PRAIRIE CHAPTER MEMBERSHIP APPLICATION – 2022

Please provide new and current contact information in the space below.

Name: _____

Company: _____

Address: _____

City: _____ **Province:** _____ **Postal Code:** _____

Home Ph: _____ **Bus Ph:** _____ **Fax:** _____

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Certified Arborist Yes **No**

Method of Payment: Cheque (Payable to ISA Prairie Chapter) MasterCard Visa

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FOR STUDENT MEMBERS ONLY:	MUST BE SIGNED BY ALL MEMBERS: I hereby agree to abide by the ISA Code of Ethics for Arborists in all matters relating to technical arboricultural activities, business operations and civic responsibility, furthermore, I will also conduct myself as to improve the status of Arboriculture as a respected industry professional.
I verify that _____ will continue during 2022 as a Full Time Student in arboriculture, or supporting allied fields at a recognized educational institution.	
_____ Signature of Faculty Advisor	_____ Signature

ISA Code of Ethics can be viewed at: https://www.isa-arbor.com/code-of-ethics

2022 Membership Dues
Dues are for the calendar year: January 1 thru December 31, 2022, and not pro-rated for any portion thereof. All prices below are in Canadian funds. There is no GST payable on membership dues.

Prairie Chapter Only:	**$ 125.00**
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I would like a paper copy of the newsletter. Check Here ☐	**$ 30.00**
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Sustaining Membership (Chapter): A Sustaining Membership allows Companies and Corporations an opportunity to promote their business, and show colleagues, clients, and other consumers that you support our industry at an elevated level. Sustaining members are recognized in the newsletter, on the website. They receive one voting membership as well as member rates for four representatives to attend the annual ISA Prairie Chapter conference and other Chapter sponsored workshops (other than the TCC and TRAQ), also receive member rates on books and other learning materials.

Note: If you would like to have your information added to our "Hire a Certified Arborist" page on the ISA Prairie Chapter website, please contact the ISA Prairie Chapter Office. You must have a current ISA Prairie Chapter membership and be an ISA Certified Arborist in order to be listed

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December	November 30

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Submit articles, ads, letters and written requests to:

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