

What's flying around....



Celebrating Arbor Week May 19-25, 2024 and Arbor Day May 24, 2024

Healthy Trees - Heathier People

YFBTA member Walter Farquharson

My life-partner, Joan, was an unapologetic tree hugger. She had her favorite trees and asserted that she felt freer, less burdened, happier and energized, whenever she took a few minutes to hug a tree, thanking it and blessing it and, through it, thanking the universe, absorbing and sharing life itself. I was not so much a tree hugger but I loved sitting with my back to a tree trunk – just being – and being “with”.

Most of us have taken shelter under or near trees. We've been awed by a tree's beauty, its sturdiness and sometimes its perseverance. We've celebrated trees that marked special places and held special memories. We've painted and photographed trees, sung about them, carved pieces of them. We've climbed them, built tree houses and swings in them, delighted in the scents and sounds of them, grieved the loss of them.

Many of my best memories of home and family connect with planting trees, enjoying the spring blossoms and the autumn fruit of trees, the smell of wood burning in campfire or fireplace, the welcome trees provided for our feathered and furry friends.

Folk lore and treasured stories have celebrated the healing power of trees and their intrinsic value to individuals and communities. Today an increasing body of scientific exploration, experimentation, observing and analyzing, add weight and data to support that older “inner” knowledge.

Be Prepared to be Surprised!



Ruffed Grouse

Photo: YFBTA member Cindy Smith

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Exposure to trees (even in film) can reduce post-surgical and medical hospital stays, peel days off treatment for addictions and depressions, improve learning motivation and alertness, reduce potential for re-offending among the imprisoned, actually increase the probability of people picking up trash, aiding a stranger in distress, giving to a charity or volunteering for service in some healing activities for persons, communities, and environments.

People exposed to an environment enriched by trees regularly report higher levels of energy, sense of wellbeing and belonging, hopefulness, concern for others and the world, ability to cope with change and loss. All of this – and a lot more – because of, and through, trees.

Healthy Trees

YFBTA member Warren Kaeding

Being born and raised on a farm in East Central Saskatchewan, I have always appreciated the triggering of the senses from nature that surrounds us. The smell of the freshly worked soil, the sweet aroma of freshly cut hay, the unique wafts of harvest and the intoxicating scents of trees. Each season, providing its own unique smells. Whether it was the sweet fragrances of trees and blossoms coming out in the spring, the smell of the air after a summer rain or even the odours of the impending end of the year as tree leaves began to fall and decay as they lay on the ground.

One of my fondest memories of time with my father, was our annual summer pasture fence repairs that we did together. As we worked on the prairie pasture, listening to the hum of the variety of insects in the air and the unique warbling of the meadowlark as they sat on adjacent fenceposts we would take in the intoxicating aroma of the poplars and willows as we worked near them. We would comment on their ability to withstand the tests of time and watch their succession plan as we noticed the older trees starting to break down and show their age while the young saplings would begin to emerge around the aged ones. It was not lost on us that every part of nature has a succession plan.

As we celebrate Arbor Day and Arbor Week one can reflect on the trees that have provided great memories and help renew life around us by planting a tree.

YFBTA AND SOS TREES: Working Together

YFBTA member Linda Moskaluk

Arbor Week is an important tool for promoting and protecting trees in our Province. There are so many reasons why Saskatchewan needs trees. As an agricultural community the historical shelter-belts served the purpose of stopping soil erosion. Today there are far fewer shelter belts on farms but there is also a growing need to protect what is left for carbon sequestration. Dr. Colin Laroque, head of soil science at the University of Saskatchewan researched the need for shelterbelts and found that the trees were indeed sequestering large amounts of carbon.

Not only were they hugely beneficial to the ecosystem by adding nutrients back into the soil, but they also offset carbon footprints made by landowners. He and his team have developed an app after years of research. It provides information on data collected from shelter belts to help landowners understand and calculate the dollar value of these wind breaks on their land.

<https://iss.madlabsk.ca/wordpress/>

Trees are an essential part of every farm yard as well. Farm families enjoy their benefits for privacy and wind protection. What is a rural farm yard without the surrounding green leafy foliage on the open prairie!

Urban centres also require trees as important infrastructure within cities. Residents don't often think about the urban forest and what it contributes, but the trees quietly work their magic providing wind and sun protection, enhance water flow, attract biodiversity within neighbourhoods, sequester carbon, provide aesthetic beauty to parks and streets, and provide important benefits for mental and physical health.

Day Care Planting Shrubs in Gunn Park Saltcoats



Photo: YFBTA member Ron Knudsen

The non profit organization SOS Trees Coalition based in Saskatoon is a part of a stewardship program - encouraging tree planting and educating the public about getting involved with the trees in their community. Our organization has been active since 1992 when the threat of Dutch Elm Disease first became a threat.

Since then we have recognized the need for so many other tree related considerations. We investigate tree protection issues, provide advice on planting and maintenance, and encourage education about trees as they relate to benefits, climate change and sustainability. SOS Trees has lobbied Saskatoon City council for a new tree protection bylaw which was just recently passed in 2024. Our reach has even extended to other cities helping to solve issues in Moose Jaw and Prince Albert.

2024 will be the 4th Arbor Week in Saskatoon. Our theme 'Homegrown Resilience' emphasizes the importance of resilient hardy trees in our province so that we can benefit from all that they provide. This enables us to live, work and play under their green canopy which in turn helps us to live resilient lives through nature. Some of the events for Arbor Week 2024 so far include a U of S Webinar, Tree Talk at the Outer Limits store, a film night at Remai Modern art gallery, a tree planting event, QR Code self guided tree tours in selected parks and an interactive Tree Talk event along a downtown trail with poet Ariel Gordon from Winnipeg.

Our website will have a page listing all of the details. <https://www.sostrees.ca/>

We encourage the public to come out the last week in May to enjoy trees and all they have to offer. We hope that other communities around the province will also consider an Arbor Week/Day celebration.

Sightings By Members

On February 22, 2024 at 8:30am Larry Trowell saw a Canada Goose on a field west of his farm located near Saltcoats. There was only the one lone goose.

On February 26, 2024 Les Pearson sighted a flock of (10-22) Ravens and 2 bald eagles eating on a deer carcass just outside Saltcoats on #16 highway near the elevator.

When in Nature, Be Prepared to be Surprised

Learning about Trees and the Story of Prairie Shelterbelts

YFBTA is sponsoring a visit to the area by William Schroeder, author of Trees Against the Wind. Springside Library Tuesday April 9 at 1:30p.m. Yorkton Public Library Tuesday April 9 at 7:00p.m. (co-sponsored by Yorkton Public Library, Bill will be joined by Lorne Scott. Wednesday April 10th, Bill will be in Saltcoats School talking to students about frees and engaging them in an activity. Wednesday evening April 10 a potluck supper begins at the Stirling Room in Saltcoats followed by a presentation by Wm. Schroeder beginning at 7:00. All interested are welcome. On Thursday April 25 at 7:00p.m. Bill Schroeder's presentation on trees will be hosted by YFBTA and Churchbridge in Bloom.



Winter, Summer, Spring and Fall Shelterbelts Offer Beauty, Tranquility and an Invitation for Nature Contemplation

Re-creating a Hedgerow

William Schroeder

My father homesteaded a half section of trembling aspen in the RM of LeRoy No. 339. He carved his farm from this piece of land leaving 20 meter wide strips of woods separating the property into 40 acre fields. He appreciated the protection the hedgerows provided his land but also valued the habitat they provided for birds, mammals and wildflowers. The trees remained for as long as he owned the land. I do not recall a crop failure even during the drought of 1961, what I do remember are the birds, animals and berries present on that half-section. The land was healthy and nature was well served.

After the land changed ownership those hedgerows were removed to allow GPS guidance systems to do their job easier and make every acre 'pay cash'. I worry about that. How long can we continue to mine a resource without giving anything back? We are seeing a gradual change in the accepted norms for the condition of the natural environment due to a lack of experience and knowledge of its past condition. What many farmers now consider to be a healthy environment, my father would consider degraded, and what we consider degraded now the next generation will likely consider healthy or normal.



Photo 1: Aerial view of the farm before and after clearing (2011 – wet year and 2022 – dry year)

Remembering the diversity and structure of my father's hedgerows, I set about to design nature friendly hedgerows as an alternative to single row monoculture shelterbelts.

We called these planting Eco-Buffers, three to five rows of trees and shrubs spaced 2.5 meters apart with an in-row spacing of one meter between plants. The idea of high density planting is for the plants to quickly capture the site, choking out weeds. My goal was to simulate my fathers hedgerows by planting native trees and shrubs together at a high density.

We called these planting Eco-Buffers, three to five rows of trees and shrubs spaced 2.5 meters apart with an in-row spacing of one meter between plants. The idea of high density planting is for the plants to quickly capture the site, choking out weeds.

We used a combination of long-lived and fast growing trees along with tall shrubs in the middle rows with small to medium sized flowering shrubs in the outer rows (see figure 1).

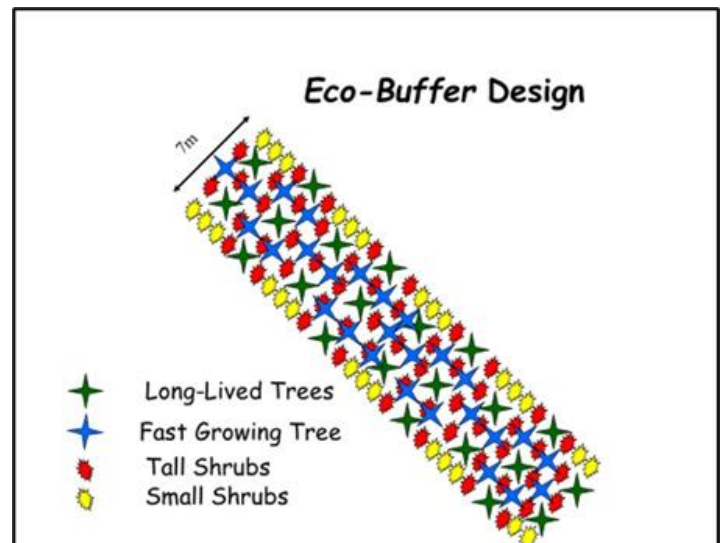


Figure 1: Five Row Eco-Buffer Design

The first Eco-Buffer we planted is approaching 20 growing seasons. The structure of that buffer has changed slightly with the long-lived trees starting to push through the fast growing nurse trees and flowering shrubs dominate the boundary of the buffer. Herbaceous perennial plants are found on the buffer edges. The understory is covered with a bed of decaying leaves and organic matter. Getting through the buffer is not easy unless you are an animal or bird. As you walk along the buffer you can feel, smell and hear the nature that abounds within. It takes me back to the days strolling alongside my father's hedgerows.

William Schroeder is the author of *"Trees Against the Wind: The Birth of Prairie Shelterbelts"*. Visit Nature Saskatchewan's website to read a few sample pages or to order the book online.

www.naturesask.ca

"Heroes From Hobbits to Trees" Guest Article By Jeff Cook, Transcona, MB

Famed fantasy author, J.R.R. Tolkien's "Lord of the Rings" trilogy tells the story of a diverse group of heroes – hobbits, humans, elves, dwarves....and trees!

The trees are protected by Ents – tall tree-like creatures who have faces and possess their own languages and customs. In the second volume of the Rings Trilogy – 'The Two Towers' – the Ent named Treebeard leads these tree creatures in an attack on Isengard, the fortress of the wizard Saruman.

The Ents are a patient, contemplative race, yet they are stirred to action when they discover that Saruman and his army of Orcs have ravaged sections of the forest, cutting down and burning trees.

The Ents emerged from Tolkien's imagination and his mystical, deep love of trees. When he was young, Tolkien's mother taught him about botany, but, according to Tolkien biographer Humphrey Carpenter, Tolkien was more interested in the shape and feel of a plant than in its botanical characteristics.

Carpenter wrote of Tolkien; "...though he liked drawing trees he liked most of all to be with trees. He would climb them, lean against them, even talk to them. It saddened him to discover that not everyone shared his feelings towards them."

Carpenter notes that Tolkien's love of trees and his general love of the English landscapes through which he regularly strolled, resulted in stories that 'harmonized with the growing ecological movement.' (Carpenter, p. 306).

In a 1955 letter to the Houghton Mifflin publishing Company, Tolkien stated, "I am (obviously) much in love with plants and above all trees, and always have been; and I find human maltreatment of them as hard to bear as some find ill-treatment of animals"

(<https://www.rootssimple.com/2016/09/tolkien-and-trees/>).

The world needs to follow Tolkien and fall in love with plants and trees...for the sake of plants and trees, the sake of human beings, the sake of the world.



Photo: YFBTA member Shevon Wilson

The science website 'livescience' last year published an article emphasizing the vital links between trees and maintaining the ecological well-being of the earth (the following quotes and information come from that article, posted on April 28, 2023 at <https://www.livescience.com/27692-deforestation.html>).

The World Wildlife Fund reports that forests cover more than 30% of the Earth's land surface. Forests produce oxygen and are home to 80% of Earth's terrestrial species.

"Trees also absorb carbon dioxide, mitigating the emission of greenhouse gases produced by human activity." As climate change continues, trees play an

important role in carbon sequestration, or the capture and storage of excess carbon dioxide. Tropical trees alone are estimated to provide about 23% of the climate mitigation that's needed to offset climate change..."

The World Bank estimates that the earth has lost 1.3 million square kilometers of tree growth, an area larger than the size of South Africa, in the past 25 years.

According to the United Nation's 2020 State of the World's Forests report, three-quarters of Earth's freshwater comes from forested watersheds, and the loss of trees can worsen water quality. The report also found that over half the global population relies on forested watersheds.

My High School biology teacher often asked his students, "Have you thanked a green plant today?"

Humans need to recover a sense of gratitude for the green plants that are the lungs of this planet. We need to let our gratitude and love shape behaviours, policies and practices that will befriend rather than abuse or exploit this creation.

We need to experience Tolkien's love of creation and sense of union with the non-human life with which we share this world. We need a Tolkien imagination that perceives the world as enchanted, teeming with diverse life, whose interdependence and mutual support are the root of well-being for all Earth's creatures.

Angered by the destructive practices of the wizard Saruman, Treebeard grieves "the treachery of a neighbour who should have helped us. Wizards ought to know better; they do know better." (The Two Towers, Harper Collins 1994 edition, p. 101).

Wizards should know better....all of us should know better!

Get Involved!

Living Lakes Canada is looking for volunteers to monitor a lake they love this summer. Join this free citizen science volunteer movement to protect fresh water lakes across Canada. Hurry, registration will close at the end of April! Visit www.livinglakescanada.ca to learn more.

Editor's note: Kevin Elmy has a Bachelor of Science in Agriculture from the U of S. His family farmed in eastern Saskatchewan from 1999—2021 on the third generation family seed farm where they used regenerative agriculture practices.

Rhizo Spelling? YFBTA member Kevin Elmy

With technology we are positioned to receive more knowledge, which usually leads to more questions. As Dr. Kris Nichols stated when she was working on her degree in Agriculture, her teachers said we know about 1% of what is going on in the soil. When she finished her Masters, they thought they knew 0.1% of what is going on in the soil. Upon finishing her PhD, researchers thought they knew 0.01% of what is going on in the soil.

Nutrient uptake by plants is one of those areas. The thought process was most of the nutrients were taken up by plants through the soil water. Then came the thought that the soil microbes had an influence on nutrient availability. Now, Dr. James White has been studying a process termed as rhizophagy, Latin for "root feeding".



Photo: YFBTA member Kevin Elmy

Rhizophagy is a process where microbes are absorbed through the root tips, where possible, stripping the cell wall off the microbe and metabolizing the cytoplasm, obtaining the nutrients within the microbe. If the cell wall is not able to be broken down, the plant cell then stores those microbes until the root dies and then it is released. The microbes that are digested, the nuclei are replicated within the plant cells and then shot out of the root tip. The plant seems to send out signals to the nucleus to re-form a cell wall. Once the cell wall is re-formed, the microbe continues to function as it was prior to being consumed by the plant.

Some of the microbes are retained within the plant to function for the plant. Whether it is producing hormones, synthesizing specialized molecules to aid in plant growth, or plant protection products. Some of the microbe production is ethylene, which builds up in the root tip. The build-up of ethylene stimulates root growth, which thins the meristematic tissue, allowing the absorption of more microbes.

The advantage for the plant to obtain nutrients this way is that the plant is able to ingest complete molecules, instead of passively absorbing ions from the soil that are just building blocks for the plant to then create complex molecules. It takes a lot of energy for the plant to manufacture complex molecules from ions, energy that could be used for plant growth.

This whole new way of looking at how plants take up nutrients changes how we look at supplying nutrients to the plants. Soil chemistry neutralizes and locks up those nutrients in the soil. Research has shown the fertilizer use efficiency of synthetic nitrogen is normally under 50%, synthetic phosphate fertilizer is under 30%, normally closer to 10%. And we are willing to continue to use those products. For nitrogen fertilizer, the part that is not used by the plant can be lost in various ways. The nitrogen can be leached away, volatilize into the air, used by weeds, or used by the soil biology to adjust the carbon: nitrogen ratio in the soil. Phosphate can also be lost by erosion or the phosphate can react with cations in the soil, like calcium creating a very strong stable bond that plants cannot get. Even the microbes have issues breaking the calcium-phosphate bonds. Whereas nutrients derived from plant materials, are already balanced chemically so can be in the soil without the fear of getting tied up by soil chemistry.

As technology advances it will open new windows to allow us to further understand how different processes work. How microbes interact with the soil and plants. How the plants signal to the microbes what they need and what microbes are required to get the job done. If Dr. Kris Nichols thought science knew 0.01% when she completed her PhD, they would be around 0.001% today. The more you know, the more you appreciate what you do not know.

<https://www.youtube.com/watch?v=oBTqOMzXZAo>
<https://johnkempf.com/an-introduction-to-rhizophagy/>
<https://encyclopedia.pub/entry/26279>

Young Writers' Corner

Maple Island Musing

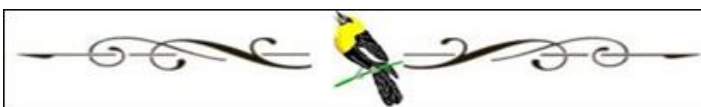
Hi, my name is Jameson Schoenau. I am 11. I'm a good friend of Rob Wilson. My grandpa (Morley Maier) and I like to go for walks at this place called Maple Island. But it is not actually an island. My Grandpa used to go to Maple Island when he was a kid and played with his friends there. We like to admire the trees and how beautiful they are. I like to watch them sway in the wind and the birds sing on them.

Maple Island



Photo: YFBTA member Morley Maier

In the fall I like to pick up the leaves and use them for crafts. But the one downside is that the trees are dying because they are very old and are rotting. Make sure not to litter. Make sure to throw your trash into the garbage. I like climbing the trees and collecting sap from them. I hope you like trees just as much as I do. I hope you enjoyed my article



Editor's note: Can be viewed on YFBTA website

Published newsletters -	2004 - 2023
Loon Initiative reports -	2009—2023

Arbor Week News

It's Arbor Week in Saskatchewan! How will you Celebrate? By the Saskatchewan Ministry of Environment

When you think of Saskatchewan's landscape, what comes to mind first? The most common answer would probably be the vast treeless prairie, but our province is much more than its southern plains! Did you know that forests cover more than half of Saskatchewan? Trees are also an important part of every community, with dozens of species found in urban forests all over Saskatchewan.

To highlight the key role trees play in our lives, the Government of Saskatchewan has proclaimed May 19-25, 2024 as Arbor Week with Friday May 24 as Arbor Day. Arbor Week is a wonderful time to remember how important trees are and how we can appreciate and celebrate them.

Our urban trees give us so much. They provide homes for wildlife and birds. Trees can reduce our heating and cooling costs by sheltering buildings. Trees produce oxygen and clean the air we breathe. They provide beautiful place for recreation and reflection. Trees make cities and towns into beautiful, connected communities!

There are so many ways to celebrate trees. You could plant trees in your yard, organize a spring clean up in your community, learn about the different trees in your neighborhood, or simply take a moment to think about the many ways that trees make our lives better.

Organizations like the Yellowhead Flyway Birding Trail Association host events during Arbor Week to have fun while appreciating and learning more about trees. A big thank you to the many volunteer who give their time and talent to share their loves of trees with their neighbors!

How will YOU celebrate Arbor Week?

Honoring Warren Kaeding re Arbor Week

The YFBTA, working with Churchbridge in Bloom and the Town of Churchbridge will plant a tree in Churchbridge at The Rest Stop - #16 Highway east during Arbor Week honoring the work and support of Hon. Warren Kaeding who played a key role in the Province of Saskatchewan moving to proclaim and Promote the Annual Spring Arbor Week/Arbor Day within the Province. Date and time TBA during Arbor Week - May19-25. Watch for announcements about other Arbor Week events. Create events - personal, group, community!

Letter to Editor

Love the approach to the newsletters. Much better to feature kindness and appreciation than criticism. I will keep the newsletter in mind if items come along that might be of interest.

YFBTA member Jacquie Bolten

What's Flying Around: Newsletter Group Volunteers

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