



Friends of the Central Experimental Farm

Winter 2020 Newsletter

Volume 32 No. 1

The Main Lawn

By Patricia Jasen



Patricia Jasen

The main lawn of the Central Experimental Farm, which extends from the William Saunders Building to the Driveway, is a tranquil spot. It is home to a wide variety of trees, but its history is quite different from that of the Arboretum. During the early decades, the lawn was central to the Farm's mission, and it survives today as an original and significant feature of

the physical and cultural landscape. It is also a lovely place to visit.

Research and Beauty

As the Historic Sites plaque on the south side of the lawn reads, the Farm was designed by Dr. William Saunders to "bring together two strong 19th century interests: agricultural improvement and picturesque

design." A pleasing landscape and successful farming, informed by science, were believed to go together.

Saunders' own stately residence, fronted by a six-acre lawn, epitomized the association between beauty and research. It was constructed in 1887-88 in the highly decorative "shingle" style of the period, as

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The Main Lawn ... *(continued from Page 1)*

were several other dwellings. All featured inviting wrap-around verandahs facing towards the lawn. These residences housed the senior managers in the various fields of agriculture who, with their families, formed a close-knit scientific and social community, as Helen Smith has brought to life in her book *Ottawa's Farm*.

The twin values of research and beauty were embodied in the development of the lawn itself. In *Blooms*, author Richard Hinchcliff has recounted how Saunders created the first ornamental gardens in front of his home to beautify the property and, as his "gospel of horticulture" dictated, to test annuals and perennials that might thrive in different parts of the country. Trees were planted around the lawn both for enjoyment and for research purposes. Among them was the *Malus baccata*, brought from Russia, from which he bred hardy apples for the Canadian Northwest. After Saunders' retirement, William Macoun moved the test beds closer to his own home, but lush borders remained to enhance the garden-like atmosphere.

Garden Parties and Farmers' Picnics

The main lawn symbolized the interconnections between branches of knowledge within the Farm, and it was also where Dr. and Mrs. Saunders entertained luminaries from wider scientific communities and the political establishment. Garden parties at the Farm could be lavish events. Society columns of the daily press published the names and titles of those who attended, along with minute details of the women's hats and dresses, and praise for the verdant setting.

On a different social level, Farm officials and the rural public they served came together on the lawn to forge ties that would

serve the national interest. From the start, the Farm was meant to attract visitors from near and far who would enjoy its bucolic atmosphere, learn about agricultural methods in Canada, and imbibe the nation-building agenda of the federal government. Canadians were urged to "make a pilgrimage to this little spot, the source of inestimable wealth and prestige to the Canadian farmer." Many came with their agricultural associations for picnics and children's field days, events that might include educational lectures followed by Farm tours for the men of the family.

A Changing Landscape

Of course, there were changes in the main lawn's physical environment. In the 1930s, three of the large (and drafty) Farm officials' houses were demolished in quick succession: the former Director's residence, Macoun's home to the south, and the chemist's house on the south-east corner. With them went the lawn's curving roadways and perennial borders. On the north side arose the new William Saunders Building, testimony to the vastly-expanding research functions of the Farm during the Depression years. The imposing "Collegiate Gothic" style building, with a rectangular green stretching before it, gave new emphasis to the campus-like atmosphere of the Farm's core.

Welcoming the Community

While the use of the lawn was restricted to government-sponsored functions in the early years, celebrations of all sorts became commonplace during the middle decades of the 20th century. They took place in the open air or under marquees, frequently with

music supplied by the Governor General's Foot Guards, the Farm orchestra, or other ensembles. Social service, religious and immigrant associations came for their annual picnics; there were teas for Department of Agriculture employees and their spouses; the Women's Patriotic Committee held fund-raising garden parties during World War II; and scientific and horticultural societies continued to gather. On a summer day in 1956, the *Citizen* reported (under the headline "City Insects in Hiding") that more than 900 entomologists were touring Ottawa from a conference in Montreal and would be sitting down "for an outdoor supper" on the lawn.

Reporters also had eyes for the everyday world of the lawn and kept Ottawans informed about such matters as the return of squirrels in spring, the superior condition of the never-watered grass during a long drought, and the delight of children clambering on the sprawling old apple tree "as their fathers did before them."



Courtesy of Elizabeth Truemer

A Patriotic Association garden party in June, 1941 attracted over 500 guests. Proceeds went towards "comforts for the Royal Canadian Navy and the Merchant Marine."

A Quiet Spot

Today, the lawn is a quieter and less remarked-upon area of the Farm, but it

POULTRY CONGRESS DELEGATES AND FRIENDS GATHER IN FORCE FOR MONSTER GARDEN PARTY AT OTTAWA'S EXPERIMENTAL FARM



Not in the history of Ottawa's magnificent Experimental Farm has a greater number of visitors been registered than yesterday, when the reception to delegates to the Poultry Congress and their friends was held.

The Ottawa Citizen, July 29, 1927

A "Monster Garden Party" for the Poultry Congress delegates in July 1927. It was the biggest thus far, reported the *Citizen*, in "the history of Ottawa's magnificent Experimental Farm."



Patricia Jasen

Agriculture and Agri-Food Canada event in June, 2019. The CEF National Historic Sites Management Plan identified "the expanse of lawn south of the Saunders Building" as a Level 1 resource.



The Ottawa Journal, June 11, 1945

Advertisement for an event held on the Main Lawn

remains one of its treasures. The planting of young trees continues, and mature specimens remain from the earliest years, including a *Ginkgo biloba* planted by William Saunders, a *Magnolia acuminata* or Cucumber Tree (a native but endangered species in Canada), and the Red Oak planted by the Duke of Connaught, Governor-General of Canada, in 1911. And beyond the lawn, glimpsed through the trees, are the picturesque old residences to the east and west, the range of greenhouses, the Dairy Barn, Cereal Building, and Ornamental Gardens—all part of the Farm's unique history.

Patricia Jasen is a historian who recently moved to Ottawa and loves exploring the Farm.



Patricia Jasen

Ginkgo biloba tree at the southern edge of the Main Lawn, October 2019. The Birch Drive Heritage House is in the background.

Celebration Benches

The Friends of the Farm have begun a Celebration Bench Program. Five celebration benches were purchased and installed in 2019. Two were installed in the Shelterbelt as gifts from the Shelterbelt donors and the Friends of the Farm. Three benches featuring donor-sponsored plaques were installed in the Dominion Arboretum.

Donors have sponsored plaques for three additional celebration benches to be installed in the spring in the Dominion Arboretum, on sites agreed to with AAFC. The celebration bench program will continue as long as there are interested donors and available bench sites within the Arboretum.

Further information may be found on the Friends' website at <https://friendsofthefarm.ca/bench-program/> or obtained from the Friends' office.

What's Health Got To Do With It?

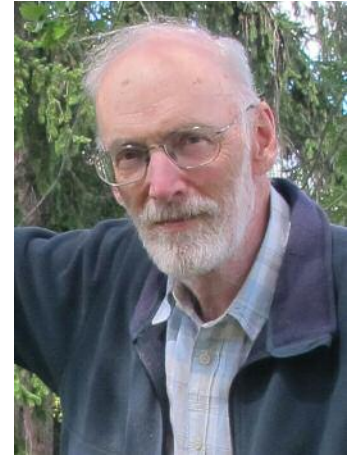
The Ottawa Hospital is in early stages of planning its new campus, to be built on former Experimental Farm land. While we all had concerns about the site and the selection process, we know this is going ahead and need to think about how it will affect the Farm. The design and planning stages are expected to take about five years.

The Ottawa Hospital has set up a Campus Engagement Group (CEG) representing community and stakeholder groups, patients, and institutions. As part of an overall community engagement process, the group will bring a public perspective to the plan and design for the new site. The Friends of the Farm are represented on the CEG, and contributed to its initial report, "A Healthy Ottawa: Planning Partnership,"¹ which has been presented to the Ottawa Hospital Board of Governors. The work of the CEG is part of a proposition to make the hospital a "blueprint project" within a new Official Plan being developed by the City. The plan will support the goal of a healthy Ottawa.

Who knows how much the Farm contributes to good health? As noted on page 13 of the report, the Farm "... is dedicated to the health of Canadians through crop research and through the study of threats and risks to sustainability such as the impact of climate change on agriculture. Additionally, the Farm is an important generator of a healthy living environment, in that it is the lungs of the City; the public areas (the Arboretum, Ornamental Gardens, etc.) promote both the physical and mental health of Ottawa residents and visitors by providing an oasis from our busy city."

This newsletter has recently reported on work being undertaken at Carleton University to gauge the health benefits of being in or near the Farm. The studies on air pollution and noise levels alone show how the Central Experimental Farm can improve the health of Ottawa residents.

The Friends of the Farm are now beginning to look at possible projects to help build on these benefits, both through education and by facilitating direct



involvement in activities that promote health. If you would like to get involved in the early stages of this kind of project, please contact us at info@friendsofthefarm.ca

Eric Jones
President, Friends of the Farm.

¹ www.greatertogether.ca/wp-content/uploads/2019/11/The-New-Campus-Narrative.pdf

Que vient faire la santé dans tout ceci?

L'hôpital d'Ottawa en est aux premières étapes de la planification de son nouveau campus, qui sera construit sur un terrain qui appartenait autrefois à la Ferme expérimentale. Alors que nous avons tous des préoccupations par rapport au site et au processus de sélection, nous savons que le projet va de l'avant et nous devons maintenant réfléchir aux répercussions qu'il entraînera pour la Ferme. Il faudra prévoir environ cinq années de travail pour franchir les étapes liées au design et à la planification.

Le campus Civic de l'hôpital d'Ottawa a constitué un groupe de mobilisation publique (GMP) qui représente la collectivité, des groupes d'intervenants, des clients et des organismes. Dans le cadre d'un processus de mobilisation qui rassemble toute la collectivité, le groupe permet au public de faire entendre son point de vue relativement au plan et au design du nouveau site. Les Amis de la Ferme comptent des représentants au GMP; ils ont d'ailleurs fait une contribution au rapport initial, « Sain partenariat de planification à Ottawa »¹, qui a été présenté au Conseil des gouverneurs de l'hôpital d'Ottawa. Le travail du GMP découle d'une proposition selon laquelle l'hôpital du campus Civic est vu comme le « projet-modèle » dans le cadre du nouveau plan officiel élaboré par la Ville et dont le

but est de faire d'Ottawa une ville saine.

Qui sait de quelle manière la Ferme peut contribuer à la santé? Comme le note le rapport à la page 13 à son sujet, elle « ... se voue à la santé des Canadiens en effectuant de la recherche agronomique et l'étude des menaces et des risques à la durabilité, comme les effets des changements climatiques sur l'agriculture. De plus, la Ferme favorise grandement un cadre de vie sain en étant le poumon de la ville. Quant à ses espaces publics (par exemple, l'Arboretum et les jardins ornementaux), ils favorisent aussi bien la santé physique que mentale des résidents d'Ottawa et de ses visiteurs en leur offrant une oasis paisible à l'écart du train de vie effréné de la ville ».

Dans ce bulletin récemment, on a fait mention d'un travail de recherche de l'Université Carleton, soit de déterminer les avantages pour la santé pour des personnes étant sur la Ferme ou y habitant à proximité. Dès l'observation de facteurs comme la pollution de l'air et le niveau de bruit, l'étude a démontré en quoi la Ferme expérimentale centrale contribue à l'amélioration de la santé des résidents de la Ville d'Ottawa.

Les Amis de la Ferme se mobilisent déjà dans la conception d'éventuels projets qui prendront appui sur ces avantages, avec la promotion d'activités bénéfiques à



Patricia Jasen

"An oasis from our busy city." Cucumber trees (old and new) on the Main Lawn.

la santé et l'invitation à y prendre part. Si vous désirez participer à ces activités au cours des premiers jalons de ce type de projet, veuillez communiquer avec nous à info@friendsofthefarm.ca.

Eric Jones
Président, Les Amis de la Ferme.

¹ www.greatertogether.ca/wp-content/uploads/2019/11/The-New-Campus-Narrative-FRENCH.pdf

Friends of the Farm Events, 2020

Here are key dates for 2020. For more information visit www.friendsofthefarm.ca, email us at info@friendsofthefarm.ca, or call 613-230-3276.

- Volunteer Orientation - April 4
- Used Book Drop Off - April 25
- Plant Sale - May 10
- Used Book Sale - June 20-21
- Victorian Tea - June 28
- Art on the Farm - August 15
- Used Book Drop Off - October 24



Master Gardener Lectures

The following are the 2020 talks by Master Gardeners to be held from 7 to 9 pm in Building 72, Arboretum, Central Experimental Farm. See friendsofthefarm.ca for more information. Sign up for individual talks or the entire series.

- April 21 - **Our Gardens and Climate Change** with Diane McClymont Peace.
- May 5 - **Colour Through the Seasons** with Candace Dressler and Rob Stuart.
- May 19 - **Into the Night Garden** with Judith Cox.
- September 15 - **Another Gardening Year Behind Us** with Mary Shearman Reid.
- September 29 - **A Garden for the Birds** with Heather Clemenson and Julianne Labreche.

Commemorative Tulips

This spring, 9,000 bright orange 'Liberation75' tulips, purchased by the Friends of the Farm, will bloom in the Ornamental Gardens. This special tulip bulb commemorates the upcoming 75th anniversary of the liberation of the Netherlands by Canadian troops. It also celebrates Canada's hosting of members of the Dutch royal family during the Second World War.

The Netherlands initially sent 100,000 tulip bulbs to Canada in 1945 as a thanks for providing a safe haven for the future Queen Juliana and her family. During the time they resided in Ottawa, Her Royal Highness Princess Margriet, third daughter of the Queen, was born.

Each year the people of the Netherlands and the royal family send 20,000 bulbs to Canada in recognition of the close ties between the two countries. In September 2019, Princess Margriet presented 'Liberation75' tulip bulbs to Canada.

The Canadian Tulip Festival, the Embassy of the Kingdom of the Netherlands, and the National Capital Commission launched a campaign to plant 1.1 million of the tulips across the country

Matthew Braddon



'Liberation75' tulip bulbs in western lilac row.

to honour the 1.1 million Canadians who served in the War. One dollar of every bag sold goes to the Royal Canadian Legion.

Thanks to Blaine Marchand, Director of Gardens for the Friends, who arranged for the purchase, and to Agriculture and Agri-Food Canada (AAFC) staff, who plant-



www.liberation75.ca

Bright orange with crown-shaped petals, the 'Liberation75' is an early to mid-blooming hardy tulip.

ed the bulbs. There will be a grand show in the spring alongside the lilacs in the row west of the rock garden. The planting is close to the impressive new water feature installed this summer in the Rock Garden, made possible by the generous donation of the late John Connor.

Consider joining the Friends of the Farm!

Find our membership form on the website and pay by PayPal or send in a cheque:
www.friendsofthefarm.ca/become-a-member/.

Benefits include discounts on Master Gardener lectures hosted by the Friends, one free adult admission per visit to the Canada Agriculture and Food Museum, quarterly printed newsletters by post, and monthly Farm Notes e-newsletters.

We also accept donations to support our activities and events, which also support the garden teams that maintain the cherished Ornamental Gardens. A variety of donations can be made through our webpage:
www.friendsofthefarm.ca/donations/.



Heritage Rose Garden Volunteers



Jennifer Williams

Members of the 2019 Heritage Rose Garden volunteer team. Clockwise from top left: Andy McGregor, Fiona Cowell (team leader), Steve Reid, Elizabeth Campbell, Patricia Blackburn. Centre: Jennifer Williams, Patricia Blackburn. Missing: Mary Jane Brennan, Christine Collard, Jo-Anne Landriault, and summer students.

Merivale Shelterbelt Tour



Eric Jones

Roman Popadiouk leads a tour of the Merivale Shelterbelt, October 2019. To learn about the Shelterbelt, see <https://friendsofthefarm.ca/the-merivale-shelter-belt/>

900 Boxes of Books in the Basement

By Diane Roeske

We all like a story with a beginning, a middle, and a happy ending. The Friends of the Farm book project is just such a tale, starting with donation day, continuing with months of sorting, and culminating in the big sale that helps Friends of the Farm fund their work preserving and enhancing the Central Experimental Farm.

On October 19, generous donors in some 175 vehicles pulled up to Building 72 to drop off about 900 boxes (or equivalent bags) of used books, kicking off another year of the Friends of the Farm book project. Twenty volunteers worked tirelessly over seven hours to set up, unload cars, hand out thank-you flyers, and move books into the basement.

Preparations for this busy day began weeks earlier as Friends posted advertising, recruited volunteers, erected signs, and cleared out storage space. Once again, Agriculture and Agri-Food Canada staff shared their workspace, so it could be accessible for the event. Their ongoing support and cooperation is always appreciated.

People who are decluttering, downsizing, or moving take good advantage of this annual sale. No one wants to throw books out! Year after year, we see those who love the Farm show up with their donations, happy to be helping support initiatives in the Arboretum, Ornamental Gardens, and Shelterbelt.

The book project adheres to the principles of reuse, recycle, and repurpose. Grocery store packing boxes and trays that would normally end up in a crushing machine are repurposed to sort and display books. Leftover books from the sale are donated to other charities and interest groups. Boxes and trays are often



Some of the boxes in the Building 72 basement.

Betty Jean O'Flordan

reused several times over a few years. Some sorters even take discarded books home so they can be placed in their own black recycling bins.

Despite e-readers, tablets, and on-line shopping, people still like to browse used books hands-on. Those who come to the sale are often repeat customers, book dealers, and collectors. They enjoy finding out-of-print books, rare and vintage treasures, additions to their personal collections, or books they coveted but couldn't afford to buy new.

The success of the book sale relies on the many volunteers who work over several months in the basement of Building 72 to sort and categorize the thousands of books donated every year. The physical demands mirror those of the garden teams as volunteers lift, shift, and stack hundreds of boxes and trays many times before the books are sold. Customers often comment



Some of the volunteers (from left); Lorraine Boulay, Diane Roeske, David Roeske, Julie Lalonde, Steven Reid, Kelsey Cuddihy, Jim Odell, Roger Taguchi, Christine Ljungkull.

Polly McColl

that they keep coming back year after year because the books are so very well organized.

Others essential to the project are the youth groups like Nakkertok, who volunteer their time to move loads of books before and after the annual sale. As a thank-you, donations are made to their organizations.

The Friends of the Farm book project is a good story that gets better with each re-telling.

Diane and David Roeske are coordinators for the Friends of the Farm book project.



Deborah Higdon-LeBlond

Volunteer Jim Odell (in red) helping a donor unload books.

Dr. F. William Collins, Honorary Research Associate, Agriculture and Agri-Food Canada

By Joan Butcher

Forty-two years with Agriculture and Agri-Food Canada (AAFC) and 46 patents later, Bill Collins, BSc, MSc, PhD, sums up a remarkably successful and diverse career as a research scientist very simply: “I loved going to work every day.”

Part of his enjoyment was the walk, most workdays, to one of Canada’s most appealing job sites, the Central Experimental Farm (CEF). But a more significant contributor to job satisfaction seems to have been that, according to Bill, “a research scientist has no formal job description.” This aspect enhanced, rather than hindered his career, encouraging him to exercise his scientific curiosity and passion for innovation.

The full bibliography of Bill’s patents and publications, from his activity in seven different centres of AAFC research, runs to 13 pages. He worked in all the research centres but one, including the Biosystematics Research Institute, the Food Research Institute, the Centre for Food and Animal Research, the Plant Research Institute, and the Ottawa Research and Development Centre. He has many claims to fame to mark his years of ground-breaking research on cereal and oilseed natural products, but he is perhaps most recognized as the co-promoter of the naked oat. Along with AAFC’s Research Scientist Emeritus, Dr. Vern Burrows, Bill co-registered the world’s first truly naked, or bald-seeded hull-less, oat, AC Gehl.

A Nude, Bald Oat is a Good Oat

Nutritionally, although AC Gehl is similar in taste and as easy to prepare as rice, it contains twice the protein, ten times the fibre (no hulling required) and five times the iron. The very high levels of lysine and beta glucan levels in the naked oat aid in muscle growth and lower cholesterol, respectively. It is also full of anti-oxidants, has a low glycemic index (ideal for people with diabetes), and is classified as gluten-free.

When it comes to processing, the nude, bald oat, bred to leave practically all the hull behind when it is harvested from a farmer’s field, has many advantages. AC Gehl flows easily when oat seeds are conditioned for sale or food processing. There is no need to mill the oat, and it can



Courtesy of Kate Harrigan

be used directly as an ingredient in food. It does not have the many fine hairs that make threshing and handling regular oats a potential health risk due to skin and eye irritation and respiratory problems.

Environmental impact and costs are significantly reduced for the lighter oats. They cost less to ship and take less space to store. Because the oat hulls are left in the field, oat processors do not have to resort to putting hulls in landfill when they can’t find markets for them. Removing the hairs also helps reduce the growth of fungi. Another plus is the crop’s resilience to rain.

AC Gehl is the oat of choice for the elite steeds of the RCMP’s Musical Ride. We can’t provide testimony that the horses find them tastier, but because there is less weight in the oats, they are easier to handle, and there’s a reduced load from the business end of the animal.

The naked oat was some 15 years in development in the AAFC labs at the Farm. The process began with a meticulous examination of over 20,000 oat seeds from all over the world, in order to find the necessary bald characteristic. This type of long-term scientific exploration would not be possible in the private sector, where development is necessarily tied to having an identified market for a product. Research done by AAFC can be undertaken with a general goal of being useful to the farmer and food communities that bring

healthier, high-quality food to Canadians.

That’s not to suggest that supporting Canada’s competitiveness isn’t one of the goals of the research scientist. Bill Collins played an important role in the development of at least six new diversified commercial business lines using the hullless oat. One Manitoba farmer and entrepreneur who markets the Gehl variety under the name Cavena Nuda received \$250,000 during his appearance on the Dragon’s Den in 2009. In describing how he would pitch the oats to restaurants as a replacement for rice, he used the phrases “rice of the prairies” and “crop of the future”.

Beneficial for Your Face and Your Arteries

Bill has also studied the potential of using oats to enhance human health and wellness. He explained that the oat (*Avena sativa*) has compounds that don’t occur in any other species. Over 25 years ago, Bill discovered molecules in oats that exhibit antihistamine and anti-inflammatory properties. He named them avenanthramides. Clinical studies have shown that they significantly reduce inflammation and itching, with an anti-itch effect comparable to the use of a hydrocortisone.

Over some 30 years of research work in his lab, Bill produced a complete mapping

Dr. F. William Collins ... *(continued from Page 8)*

of these compounds and explored improved methods of making synthetic avenanthramides. He also developed and co-patented a method of producing a whole oat with a remarkably high avenanthramide level, using a proprietary malting process. In 2012 Ceapro Inc., a Canadian biotechnology company, signed licensing agreements with AAFC to use the technology and complete the breeding, testing, and registration of the specialty oat. Ceapro now processes and markets avenanthramides in skin, hair, baby, sun care, and cosmetic products. It has also launched a clinical study in conjunction with the Montreal Heart Institute to assess beta glucan as a cholesterol-lowering agent. Beta glucan is a glucose polymer found in the cell walls of cereals, some mushrooms, yeasts, and seaweed. Oats have a very high beta-glucan content. Bill has also done work with researchers at the University of Tufts demonstrating that avenanthramides can slow the thickening of artery walls due to buildup of fatty material.

Bill also partnered with Dr. Bruce Holub, Department of Human Health and Nutrition, Guelph University, to discover and patent the soybean components responsible for arresting the progress of Polycystic Kidney Disease, a relatively common but fatal disease in the elderly for which there was no known treatment or cure.

Bill's many innovations in oat biochemistry and bio-processing are helping Canada, already the world's largest oat exporter, lead the way in oat innovation. He has been able to capture this intellectual property for Canada through some 46 Canadian and world-wide patents. His expertise in legal defence of patents continues to help Canada advance scientifically and enable business opportunities in the private sector.

One could easily fill several more pages with Bill's interests and accomplishments outside his work at AAFC as research scientist. He is an accomplished musician and arranger, playing piano and saxo-

phone. Jazz is his speciality, allowing him to unleash his creativity.

Bill loves all plants, not just oats. This passion began when he used to help his mother in her garden. He very much enjoys opportunities to have adventures in botany, bringing back seeds from exotic plants gathered from all over the world. He and his wife Kate Harrigan, who has volunteered in many capacities with the Friends of the Farm, have an impressive array of plants and trees in their indoor greenhouse. They also showcase exotic greenery and blooms in their award-winning outdoor garden, which they designed and built together. Bill is also a kitchen designer.

And when he isn't enjoying his vacation property in Venice, Florida, Bill also continues to enjoy going to work as an Honorary Research Associate at AAFC.

Joan Butcher is a Friends of the Farm volunteer on the perennial garden and newsletter teams.



Courtesy of Tom Carkner

Director's residence at the Farm in March 1933, shortly before it was demolished to make way for the William Saunders Building.



The Friends of the Central Experimental Farm is a volunteer organization committed to the maintenance and protection of the Ornamental Gardens and the Arboretum of the Central Experimental Farm in Ottawa, Ontario, Canada.

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The Other William Saunders

By Richard Hinchcliff

The oldest son of William S. Saunders (founder and first director of Canada's experimental farm system) was William E. Saunders (1861-1943), known as W.E. He became a successful businessman and Canada's foremost ornithologist. Although his passion was for birds, he was curious about other natural sciences, including horticulture. As a dedicated gardener, W.E. would have watched his father's experiments in the gardens at Ottawa's Farm and his brother Percy's experiments with peonies.

While their three younger brothers went elsewhere to distinguished careers in science, W.E. and his brother Henry stayed in London, Ontario to look after their father's drug store. After a few years, W.E. carved off the wholesale part of the business and set up his own company to manufacture and provide supplies to drug stores and doctors. For five years, he was also a professor of practical chemistry at the University of Western Ontario in London.

Birding

At various times, W.E. served as president of the Federation of Ontario Naturalists, secretary of the Entomological Society of Ontario, and chaired a committee in charge of caring for London's street trees. His main hobby, however, was birds.

He compiled a scientifically-arranged collection of native birds, both male and female in summer and winter plumage, as well as the nest and eggs of each species. He was also curious about small mammals, and his combined collection of wildlife amounted to over 9,000 specimens.

"The most unconventional of men and without self-consciousness," wrote P. A. Taverner about W.E., "he could open up his skinning tools in the corner of a railroad car and skin his birds and mice on his knees, soon having half the car hanging over his shoulders listening with interest to his running commentaries."

Gardening

Father William taught W.E. and his other sons how to hybridize plants when they were just youngsters. W.E. experimented in his garden in London and became particularly fond of irises. He enjoyed them so much that he rarely left home in June. "June must be devoted to my irises." He was a charter member of the American Iris Society (AIS) in 1920 and became

Canadian regional vice president of the AIS.

He experimented with the growing of peonies and gladioli from seed, and described the results in a 1909 article in *The Canadian Horticulturist*. He was "appalled" by how long it took to get peony blooms (three to five years) and estimated that good flowers would come from only half the number of seedlings produced; "but at least a grower could count on getting a good variety of beautiful plants."



W.E. Saunders, aged 42.

Archives, Western University.

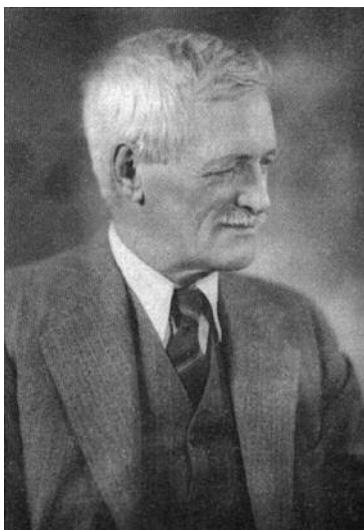
W. E. "was unusually generous with his plant treasures and seldom went far abroad without a few rare bulbs or roots for appreciative friends." And to encourage bird visits in winter, he covered some of the berry clusters on the Mountain Ash in front of his house with paper bags, so the fall robins could not eat them all.



Music was important to W.E. - a fine singer. He and his wife Emma had one daughter, Muriel (in this photo with W.E. in his garden), who became an accomplished pianist.

Archives, Western University.

The Auk, Vol. 61, No. 3, July 1944



W.E. Saunders, at about 65 years of age.

The Saga of a Norway Spruce

By Bryan D. Cook

In 1885, the Canadian government was considering ways to improve the young nation's agricultural productivity. Sixteen years previous, William Saunders, a leading Canadian agriculturalist, entomologist and pharmacist had begun to research fruit tree hybridization on his small farm near London, Ontario. He went on to establish himself as the leading authority on agriculture and horticulture in Canada. The Government asked Saunders to investigate the feasibility of implementing an experimental farm system similar to the model used in the United States. Based on his credentials and recommendations, he was appointed Director of Experimental Farms in 1886 and the following year moved into a residence on the Central Experimental Farm (CEF) in Ottawa.

Tree planting at the Main Lawn

Saunders created a beautiful landscape at the Farm, planting trees and shrubs imported from many countries, including Russia and Scandinavia. He was keen to assess their viability in the Canadian climate. An early photograph of his residence shows gentlemen in top hats and crinoline-clad ladies picnicking,

strolling, and riding in their phaetons though his nascent landscape and early plantings.

The Director's residence was demolished to build the Saunders' Building, which was officially opened in 1936; however, some of the original plantings were preserved. One such specimen planted close to Maple Drive was a Norway Spruce. Later ring counting has assessed its time of planting between 1884 and 1889, coinciding with Saunders' landscape development and making it an original CEF specimen.

Lightning strikes the Norway Spruce

In the Fall 2004 newsletter of the Friends of the CEF, Richard Hinchcliff described how lightning had shattered the trunk of this particular Norway Spruce on the lawn on the Maple Drive side of the Saunders' Building. When the tree had to be removed for safety's sake, a partially protruding cabling hook was found, likely placed to support an adjacent tree. The lightning had found this mark to earth.



Library & Archives Canada, PA-028041

A garden party on the Main Lawn (see pages 1 to 3) in front of the Director's residence.

Dr. Paul Catling, the then Curator of the Vascular Plant Herbarium, retrieved a basal cross-section about a metre in diameter and stored it in his office for some 14 years! Katrina MacNeil, a member of the Ornamental Gardens staff, retrieved another section and some branches to build some cottage furniture. Did this happen or was a winter fire fueled? We may never know!

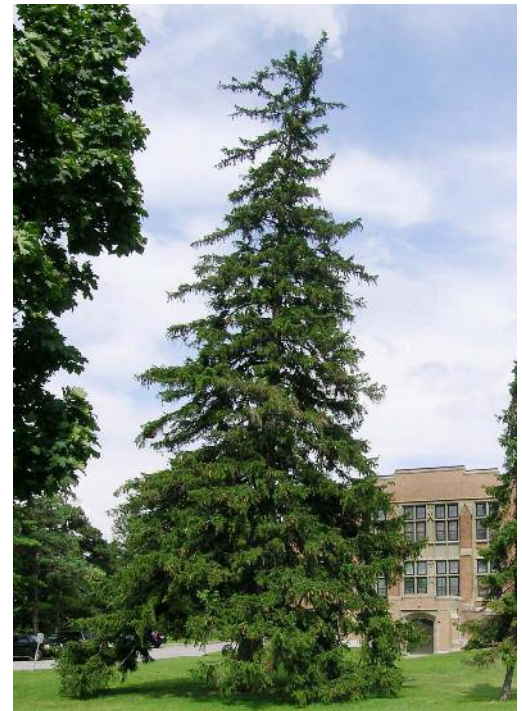
At Christmastime in 2018, Mary Sardelis delivered Catling's very dry

Continued on Page 12

National Aerial Photo Library, HA-71



Aerial photo of the Director's residence, 1926. Birch Drive is at the top, Maple Drive is in the foreground, the Main Lawn is between them to the right. The arrow points to the approximate location of the Norway Spruce.



Jean-Pascal Gratton.

The damaged Norway Spruce, 2004.

Saga of a Norway Spruce... *(continued from Page 11)*



The finished table top.

and heavily cracked cross-section to a local woodworking hobbyist and dendrochronologist, the author of this article, asking “can you use it or should it go curbside?” A Norway Spruce of such an historic pedigree cannot be so jettisoned! I foolishly embarked on months of preservation research, planing, sawing, and sanding to

create an heirloom table for my daughter.

Creating a “River Table”

No ordinary table this! A technique to stabilize and preserve the original bark was developed. A centrifuge dust collector was invented and applied. A router leveler was Heath Robinsoned together. The slab had

completely split apart during sawing to level; that split was filled with blue epoxy to create a river crossing, complete with a gravel bottom and sand delta. The entire circular table, an uneven four feet in diameter, was stabilized with a plywood lattice. Custom dams were built to stem loss of the extremely fluid epoxy. Four custom-made, powder-blue legs were added to allow four people to dine comfortably.

Other cracks in the slab were gouged to make two additional rivers, which by serendipity or the Spirit of the Tree came to represent the confluence of the Ottawa, Rideau and Gatineau rivers!

The oil finish is water, heat, and carving-knife impermeable, thanks to Belgian plant-based technology.

I feel proud to have preserved the legacy of William Saunders’ Norway Spruce!

Bryan is an alumnus of Sbeffield and McGill Universities (Biogeography). A founding member of Environment Canada, he was for 16 years the Director General of Energy Science and Technology for Natural Resources Canada and for another nine directed the government’s Energy S&T laboratories and contracted programs of the CANMET Energy Technology Centre. He is now pursuing his personal interests in Canadian history, genealogy and genetics, fishing, gardening, poetry and fine woodworking. He is one of those weird types who love cosmology, the physics of relativity and quanta, and the bluegrass banjo! He recently won the prestigious Genjuan International Haibun Poetry Competition.



The damaged Norway Spruce, 2004.



The finished table.