

The Central Experimental Farm: A History

October 22, 2025 - Friends' Speaker Series

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National Context

- Canada primarily an agricultural country.
- European settlers not familiar with the Canadian climate.
- Depression in the mid-1880s: farmers left the land, production declined.
- Yet demand for exports of agricultural goods, cattle, horses, cheese and eggs, increased.





January 1884

- Parliamentary review committee struck.
- Recommended establishment of experimental farms
- Research on new farming methods
- Information to farmers through regular bulletins.



1886

- Experimental Farm Stations Act signed into law on June 2, 1886;
- John Carling, the Minister for Agriculture;
- Ottawa chosen for the Central Dominion Experimental Farm;
- Other Farms at Nappan N.S., Brandon Manitoba, Indian Head Saskatchewan and Agassiz B.C.



1886

- Carling appointed William Saunders as Director of the Farms.
- Saunders - chemist, entomologist, horticulturist.
- Both believed scientific research could improve farmers' prosperity.



1886-1888

- Fifteen properties (465 acres) secured on the outskirts of Ottawa.
- Divided into three areas - main campus, experimental fields, Arboretum.
- James Fletcher appointed chief of botany and entomology in 1887. He established the Vascular Plant Herbarium in 1888.
- Funds allocated for a museum, lab and admin buildings, stables, barns and staff residences on the site.



1889

- James Fletcher, entomologist and botanist, and William Saunders drew up plans for and planted the first 200 trees in the Arboretum.
- Fletcher set up measures to control the spread of plant diseases and harmful insects from both within and outside Canada.



The Farm's Design

- Reflects 18th-century English aesthetic of idealized nature.
- The layout echoed a British country estate.
- Large stretches of lawn and fields, water, masses of trees and shrubbery, and winding pathways.
- The goal was to enhance nature's inherent beauty.
- Integrated harmoniously with the administrative, scientific, and functional farm buildings.



Residence of Director, 1898



Layout of the Farm

- A grid system of roadways and access lanes, distinctive fencing of red “pencil posts” with white tops.
- Cultivated fields - variable sizes, colours, textures through seasonal variations.
- Relationship between open fields and roadways with its parkway.
- Shelterbelts of hardy trees to protect the fields.
- Wooden buildings with brick-cladding.
- Viewscapes from the periphery into the open fields.



Mandate of the Farm



- Develop better farming methods through science.
- Research in agriculture, entomology, botany, chemistry, and horticulture.
- Farm contributed to the expansion of agriculture in western Canada through development of Marquis wheat and in eastern Canada through research on forages and grasses.
- Saunders and W.T. Macoun, Dominion Horticulturist, began a breeding program, including creation of new apples.

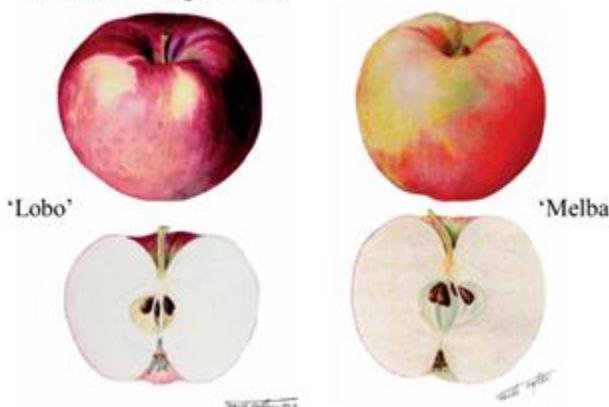
Marquis Wheat – by Charles Saunders

- Earlier harvest, better quality
- huge success story for prairie agriculture



Horticulture Division

- Fruit and vegetables



Early Research Outreach

- Communications with farming communities, universities and other institutions.
- By 1930, fourteen divisions - including animal husbandry, botany, bacteriology, tobacco, fibre, poultry, bees and cereals.
- Research at branch farms sent to Ottawa, reviewed and published in bulletins distributed country-wide.
- An annual report was tabled in the House of Commons.



Communications with Farmers

- Attended agricultural exhibitions.
- Technical staff responded to inquiries from farmers.
- Illustration stations set up on production farms, where CEF staff transferred knowledge directly to the farmer using new, or different, techniques.



1930s Onwards

- Farm within city limits, so less staff housing required.
- 1936 - the Saunders Building opened and research administration centralized.
- Frozen foods, instant potatoes developed.
- Isabella Preston, ornamental horticulturalist, influenced trends in breeding programmes worldwide.
- Scenic driveways created, enhancing the landscape of the Farm as people drove their cars to visit.
- Traffic circle created along Prince of Wales Drive.



1960s to 1980s

- Dr. Felicitas Svejda hybridized Explorer Roses.
- 1970s, “model farm” function, showcasing farming techniques; museum created.
- Ornamental horticulture eliminated in 1980s.
- Farm’s landscape creates an oasis within the bustle of the city.



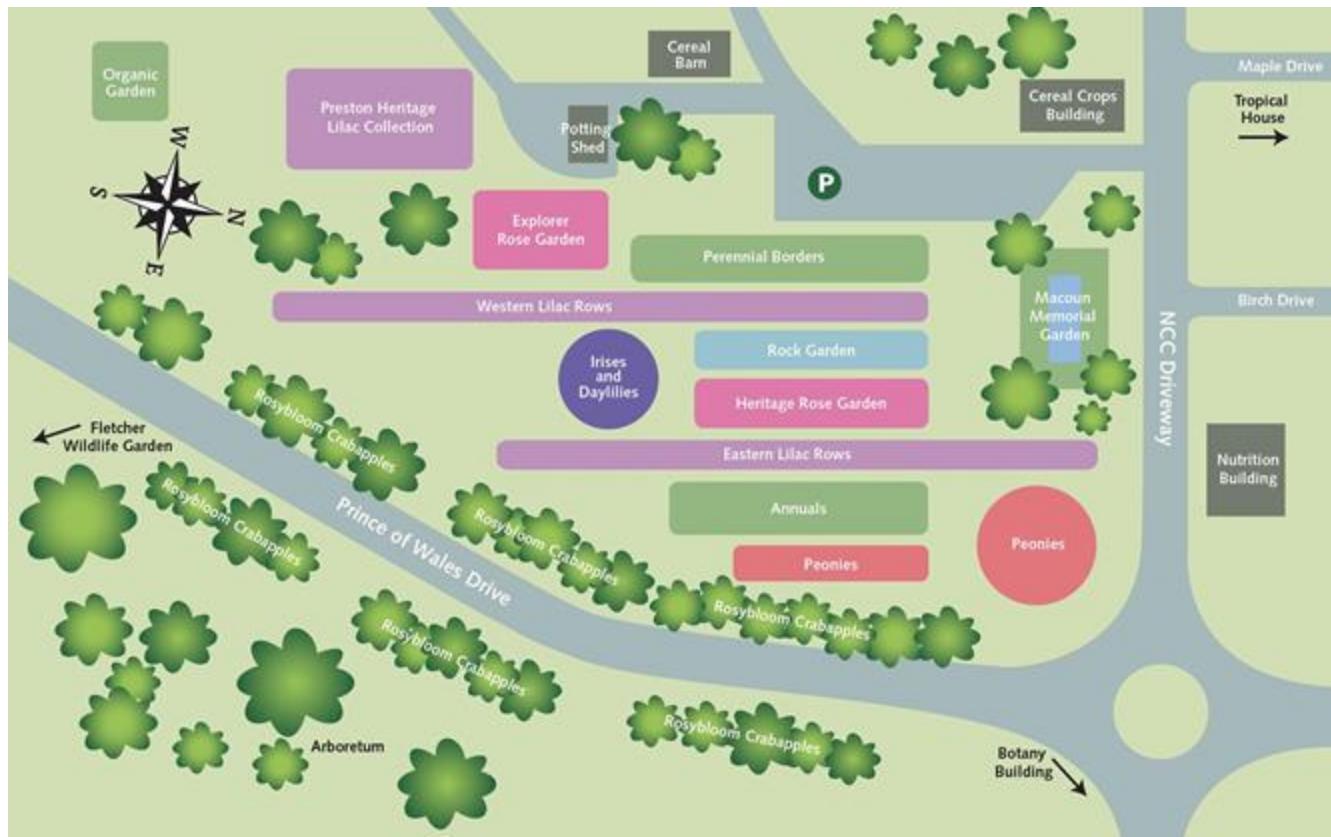
The Present Time

- In 1998, became a National Historic Site.
- Draws upon 139 years of ensuring agriculture more productive through scientific research, experimentation, and practical verification.
- Addressing key issues - human and animal health, importation of plants and livestock, identification and control of imported insect pests, and soil fertility.
- Today its laboratories, research plots, and ongoing scientific endeavors respond to agriculture and agri-food production.





Living History: The Ornamental Gardens



- Origins of gardens begin with William Saunders.
- Self-taught chemist, entomologist, horticulturist, passionate plant breeder.



- First Ornamental Gardens in front of the Saunders' house.
- Served both as formal gardens and as test beds, measuring hardiness & blooming to recommend best varieties.



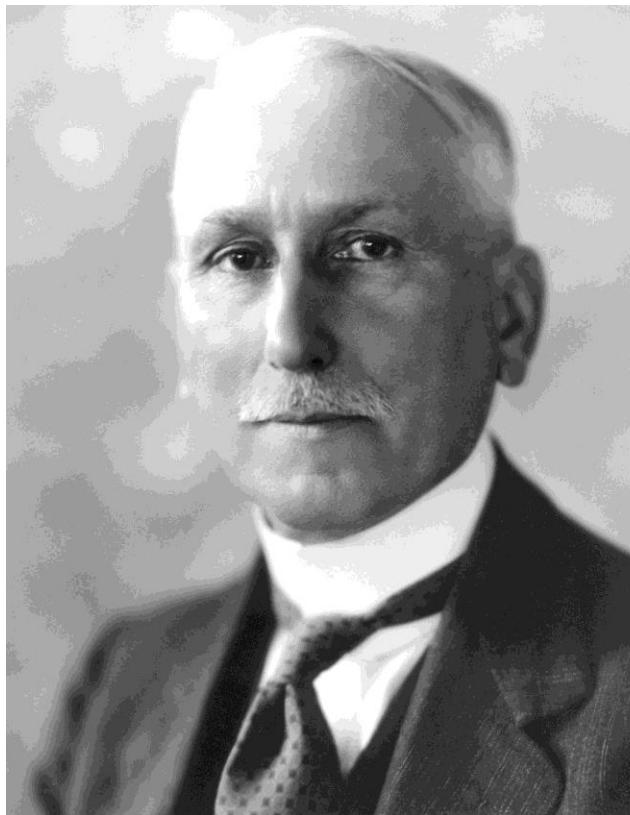


- James Fletcher and William Saunders laid out the Arboretum and a proposed Botanical Garden.
- In 1887, a perennial border was created in the Arboretum - almost 805 metres long and 4 metres wide.
- 2,041 species and varieties of herbaceous perennials were planted by 1905.



In 1888, Saunders appointed William T. Macoun, age 19, as his assistant.

In 1898, Macoun became the chief horticulturist and curator of the arboretum.



Ornamental Gardens

- Under Macoun, gardens created for horticultural experiment and breeding to respond to the Farm's mandate and to the increased interest in ornamental plants able to survive Canada's climate.
- The City Beautiful Movement, an early urban planning effort, active in Canada from 1893 to 1930, promoted the planned creation of civic beauty through architectural harmony, unified design and visual variety.
- Equally important were fruit trees, shrubs—several were created.



- In 1911 Macoun moved the Ornamental Gardens to near their current location.
- A rose garden was front and centre, including a pergola for climbing roses. Beside it was a showcase of hybrid tea roses.
- He created a perennial border to showcase the best varieties.





- In 1920, Macoun hired Isabella Preston, who had already gained fame for her “Creelman” lily.
- Her hybridizing work at the Farm was extensive - approximately 200 ornamental hybrids suited for the Canadian climate.
- She crossed two Chinese species of lilacs to create late blooming hybrids, which became known, in her honour, as *Syringa x Prestoniae*



- To honour his significant contributions, the **Macoun Memorial Garden**, a two-level garden, was created within the footprint of his former residence.
- A subscription effort raised funds.
- Designed by Warren Oliver, a landscape architect who worked at the Farm. Officially opened on June 6, 1936.
- The garden is lush with some of his favourite perennials and shrubs as well as annuals.
- Bloom time: May through September



- The **Perennial Borders**, first located in front of the Saunders residence and in a perennial border in the Arboretum.
- Recreated in its current location in 1970, design reflects borders found in botanical gardens.
- Showcases new introductions and old favourites.
- Display of perennials at full maturity and effectiveness of colour combinations.
- Bloom time: Early June through September



- Roses were loved by William Saunders and planted in 1891. Rose breeding at the Farm stretched for 90 years.
- The current **Heritage Rose Garden** was a Millenium project of the Friends and the AAFC staff.
- It blends once-only blooming roses and repeat bloomers as well as climbers and pillar roses and modern roses.
- It holds many of the CEF rose introductions.
- Bloom time: @June; repeat bloomers @ September.





- Lilacs were present at the Farm since its beginnings.
- Two rows of the **Lilac Walks** extend past the perennial borders with another set past the annual gardens and the iris and daylily bed.
- First planted in the early 1920s, there are more than 260 lilacs, an important and impressive world collection.
- Bloom time: @last two weeks of May.





- The **Rock Garden** was first started in the 1930s.
- Between 1947 & 1957, Warren Oliver redesigned it.
- Since 2014, the Friends and the Friends have been rejuvenating it by replacing trees and shrubs and introducing alpines, miniature daylilies and irises.
- A generous donation in 2019, permitted creation of a small waterfall and pond.
- Bloom time: @early May.



- The first **Peony Gardens** were created in front of the Saunders' residence. The peonies were tested for hardiness.
- The current gardens were created in 2001 and their design echoes the curved ones by the Director's residence.
- Today there are over 600 peonies, including 400 different varieties. There are 100 peonies bred by Willam's son, Percy, making it one of the largest collections of his peonies in North America.
- Bloom time: @last week of May to the 3rd week of June.





- In 2003, the **Iris and Daylily Garden** was created, reminiscent of Victorian design.
- Fourteen beds feature bearded irises, Siberian irises and daylilies.
- Among these are Siberian irises bred by Isabella Preston; and “Thorpe” irises presented to the Farm by Lord and Lady Byng, the Vice-Regal couple.
- The collection contains introductions from 1900-1980s.
- A ring of daylilies circle the beds representing varied colours and forms.
- Bloom time: Irises - @mid June-July; Daylilies - @mid July to October.



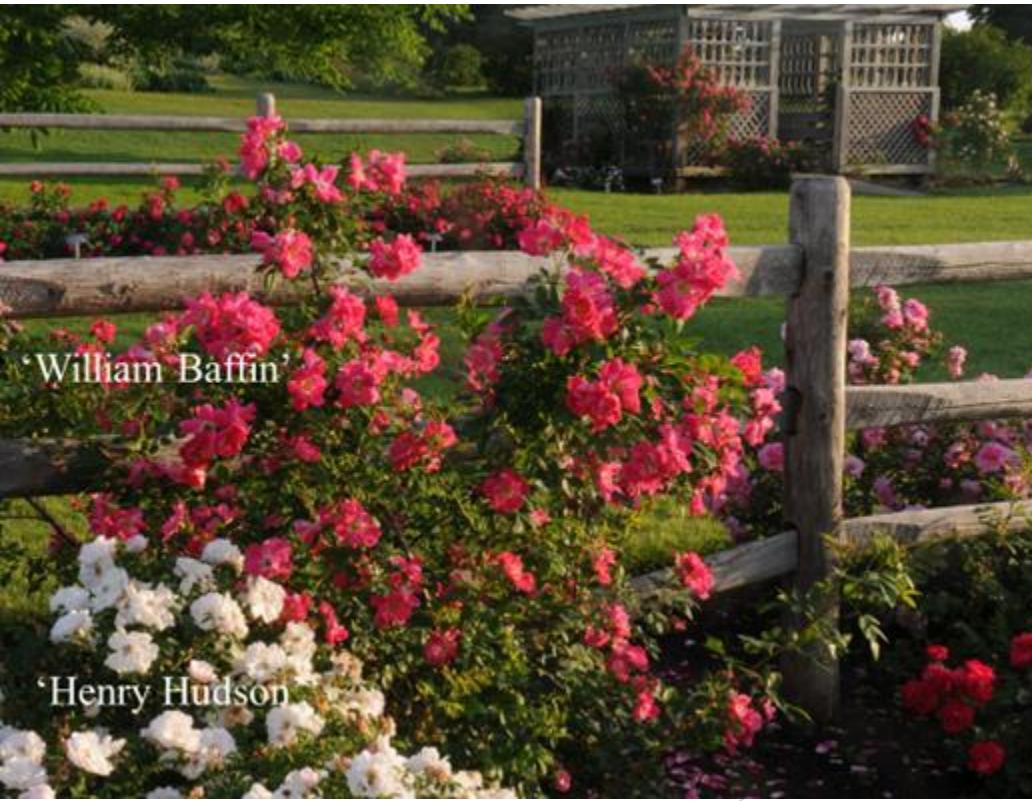
- To honour her significant achievement in the Canadian-bred, late blooming specimens, the **Preston Heritage Lilac Collection** was created in 2005.
- In addition to her own work, the garden includes varieties by her and other originators, such as Canadians William Cumming, William Leslie and Frank Skinner.
- Bloom time: @first week of June.



- Nearby, is the **Lycett and Lorrain Daylily Garden**, with plants donated to the Farm by the Ottawa Horticultural Society.
- It represents the early introductions of these important Canadian daylily hybridizers.
- Bloom time: @mid-July to mid-August.



- Also close by is the **Explorer Rose Garden**, which opened in 2015.
- It celebrates the important work of Dr. Felicitas Svejda, who introduced the first of her first Canadian winter-hardy and long-blooming rose, 'Martin Frobisher'.
- A nearby rose-laden gazebo features panels that celebrate the work of three 20th century hybridizers associated with the Farm - A.P. Saunders, Isabella Preston and Dr. Felicitas Svejda.

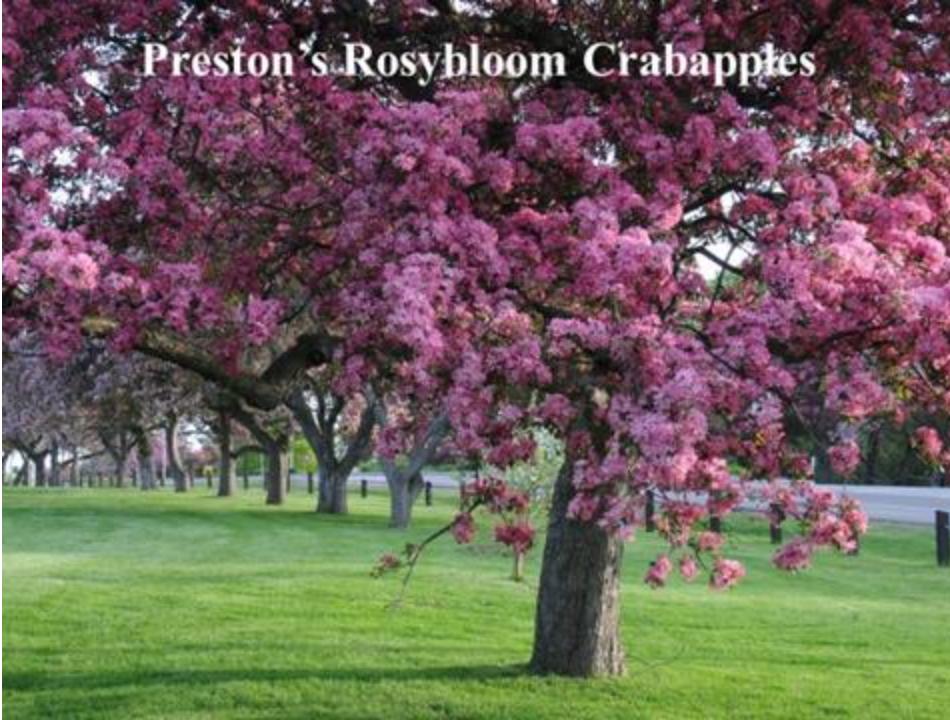




- An **Annuals Garden** has always existed at the Farm.
- Originally staff evaluated the performance and bloom of the plants.
- Today, although most of the plants are still grown from seed and planted by staff, the emphasis is to create a stunning tapestry of texture, height and colour.
- Bloom time: mid-summer through autumn.

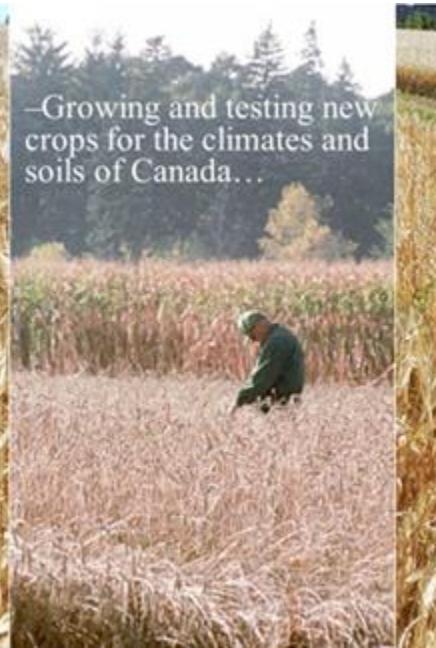
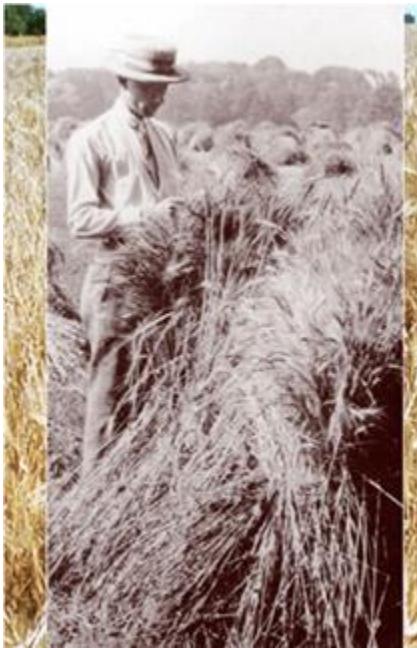


- Since 1940, the **Rosybloom Crabapples** along the Prince of Wales Drive, have been a stunning backdrop to the Ornamental Gardens.
- The work of Isabella Preston, these ornamental fruit trees have deep rose flowers and purplish foliage.
- Named Rosybloom by William Macoun, the 31 introductions were named for Canadian lakes.
- Bloom time: @ third week of May.





- Agriculture and gardening are about hope.
- Understanding the past, where we come, informs the present and shapes the future.
- The **Central Experimental Farm** remains an important and historic player in Canada's development.
- Its **Ornamental Gardens** pay tribute to the work of those who came before and reflect a collective belief there will always be tomorrow's promise.



www.friendsofthefarm.ca

- For this presentation, I wish to thank Richard Hinchcliff, for his knowledge and photographs.
- And for the detailed history as found in the book, *Blooms*.
- As well as to Dr. William Knight, curator, Agriculture and Fisheries, Ingenium.
- And many, many thanks to the AAFC gardening staff over the years with whom the Friends toil in the Ornamental Gardens.