Natural Resources

Petawawa Research Forest:

Applied Science at its finest!

Since 1918, forest researchers have used the Petawawa Research Forest to establish long term experiments and have collected data using varied and innovative techniques to learn how trees grow within Canada's Great Lakes - St. Lawrence Forest Region. This knowledge is used to inform forest practices as well as to help predict and prepare for wildfires, climate change and other forest management challenges.

The Petawawa Research Forest's (PRF) core research areas are rooted in reliable data and informed by strong connections with our partners.

Disseminating knowledge to partners

🎥 Post secondary institutions

Provincial and federal government

Research institutions

🖢 General public

Collaborative research Knowledge exchange

Technology transfer

🌉 Industry

Six areas of applied research



Climate change



Remote sensing applications



Fire research



Silviculture effectiveness



Genetics



Stand dynamics and natural succession

Historical data and established research studies

- **Demonstration** areas
- Ongoing forest operations
- Provenance trials

- Permanent sample plots
- Lidar calibration plot network





This long-term research site is an irreplaceable asset



Site security, access, and long-term tenure

Permanent research studies can be carried out over many decades to observe how a forest responds over long periods of time.



National and International network research sites

Provenance and silviculture trials that are telling us how different tree species and their genotypes grow across a range of climate and silviculture variables - very helpful for climate change research.



Historical data still grounded in active studies

Historical research sites are still being measured today, providing answers to the forest questions of tomorrow.



Remote sensing supersite

Active ground plot network of 250 plots (for calibration) plus time series of aerial LiDAR giving high resolution spatial data to support the development of enhanced forest inventories and other remote sensing applications.





Flexibility to tie forest operations in with forest research

Researchers and PRF forestry and technical staff work collaboratively to deliver results that are scientifically sound as well as applicable to real world conditions.

Research assets*

250

100

125

1100

LiDAR calibration plots Silviculture studies

Research plantations

Intensive forest management plots

13

100

300

500

Ecological reserves

Experimental fire sites

Genetic trials

Permanent sample plots

Including the oldest in Canada

*Numbers include currentlu

active and historical sites.

nfographic by Fuse Consulting

Contact the PRF:

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For more information:

https://natural-resources.canada.ca/science-and-data/research-centres-and-labs/forestry-research-centres/national-research-forests/13171#petawawa

wildfire preparedness and climate change adaptation are just a few of the key challenges the forest sector must navigate in the next century. The historical data sets provided by the PRF support the foundational understanding of how forests grow and respond to events.

Sustainable resource management,

Ongoing establishment of new and relevant studies provide dynamic tools to support decision makers as they continue to develop and adapt management solutions to a complex and changing environment.

Aussi disponible en français sous le titre: La Forêt expérimentale de Petawawa: l'essence même des sciences appliquées!

C His Majesty the King in Right of Canada, as represented by the Minister of Natural Resources, 2023.

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