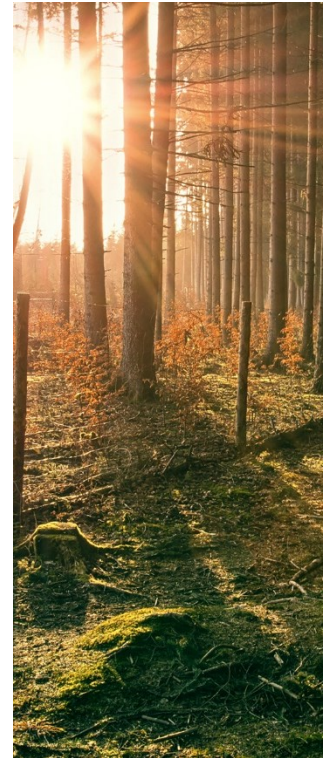# The Benefits of Managing Urban Trees

Michael Rosen, R.P.F.
President – Tree Canada

City of Cornwall

Council Meeting – November 25, 2019

About Tree Canada

- 82 million trees planted

- > 550 schoolyards greened

- > 390 communities received urban forest assistance

- 13 Canadian Urban Forest conferences (Charlottetown, PEI, October - 2020)

- Secretariat of the *Canadian Urban Forest Network* and the *Canadian Urban Forest Strategy*

- Proclamation by Parliament of National Tree Day (2011) – September 23, 2020
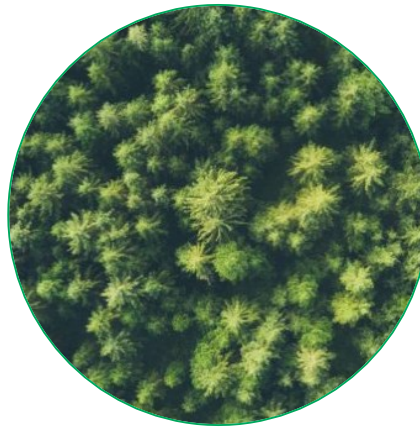
Tree Canada

Our Work

Greening communities
Champion, steward and expand our urban forests.

Reforestation and Carbon Offsetting
Mass plantings in 5 regions and offset carbon

Engagement and Research
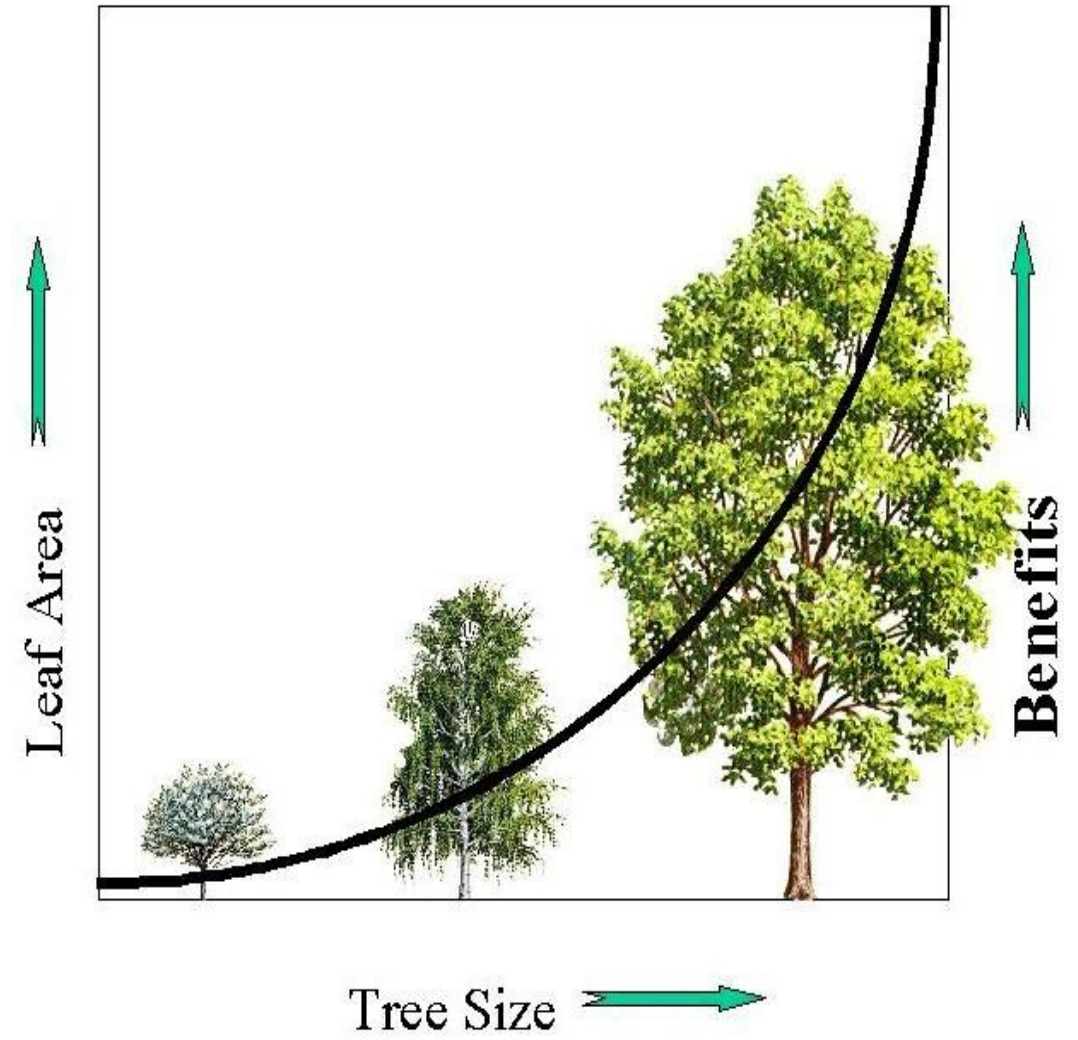Bringing together leading advocates for urban forests all across Canada.

Operation ReLeaf
Supporting communities recover from natural disasters and pests.

The Benefits of Urban Forests

- Environmental benefits

- Economic Benefits

- Social/Psychological Benefits

And…Size Matters!

Environmental Benefits

- Erosion Control

- Water/Air Quality

- Wildlife Habitat

- Shade from Heat Islands

- Noise Barrier

- Visual Barrier/Glare Reduction

- Architecture
  - accent buildings
  - define space
  - separate pedestrians from traffic
  - add colour, texture and scale

Economic Benefits

- Energy conservation (windbreak in winter/shade in summer)= 15%

- Increase property values = 7-19%

- Employment (nurseries, arborists, foresters, planners) = 1° nursery and greenhouse production 4.49 billion and 30,541 jobs/landscape services and design accounting $1.76 billion and 43,058 jobs.

- Your Community as a Business Destination = attracting employees, ↑prices, customer satisfaction

Social/Psychological

Royal Ottawa Hospital Mental
Health Centre, 2006

- Relaxation/Concentration: less fatigue, stress, absenteeism (Wolf, 2008)

- Crime Reduction: less domestic violence, ADD, graffiti (Sullivan & Kuo, 2001)

- When trees observed, stress (impacts immune system) & heart pressure/pulse reduced = less negative response to stressful experience

- "Green" work areas report higher job satisfaction and reduced absenteeism among staff (Wolf, K.L. 2008)

- Exposure to nature and greenery improves concentration abilities of children with ADD (Kruidener, HERL)

- Greener the buildings' surroundings, fewer crimes reported (S&K):42% reduction

Physical

- Decreased healing time related to patients' ability to view greenery and trees (Ulrich, 1979)

- Reduced depression/increased concentration in breast cancer patients (Sloan-Kettering, 2003)

- Reduced physical discomfort and perception (Lohr, Washington State U)

- Less green nature = less opport. to recover from stress (Pretty, 2005)

- Decreased healing time, reduced depression, reduced perception of pain (Sloan, 2003)

- 10 more trees = ↑income ($10,000) or being 7 years younger - 11 ↑ trees ↓ cardio-metabolic conditions = an increase in income ($20,000) or being 1.4 years younger (Kardan, 2015)

Municipal Needs*

- **Capacity**: Smaller communities = less staff. Larger municipalities, the majority of positions are held by managers and not necessarily practitioners or technical/professional workers.

- **Bylaws**: Larger municipalities tended to have bylaws to protect municipally-owned trees. A number of municipalities did not know whether they even had a bylaw to protect private trees.

- **Canopy Cover**: Most municipalities had no target to increase canopy cover. Those with no canopy cover targets = they intend to stay at the same level or do not have resources to target higher.

- **Pressures**: urban development, lack of funding, lack of planning.

- **Research**: Top research needs were: developing better urban soil conditions, improving resilience to pests and diseases, better identifying urban tree species for climate adaptation, exploring community perspectives, exploring multi-purpose greenspaces, and analyzing and advocating for public health benefits of trees.

* *Canada's Urban Forest: A National Assessment of Municipal Urban Forest Management Needs*, 2015

Typical Municipal Urban Forestry Program

- Strategic Urban Forest Plan: Statement of Goals and Objectives which articulates:

- Responsibilities of Parks, Urban Forestry, Citizens Committee, Public Works

- Legal Basis: land use compatibility, forestry operations, bylaws both municipal and private

- Inventory of trees: species, size, health

- Tree planting: standards, species, spacing and location

- Tree Maintenance: pruning cycle, removals, protection, education

- Integrated Pest Management

- Operational management (inventory, training etc.)

- Disaster planning

- Citizen/Private Land Engagement

Thank you! Merci!

Working Together in
ng Better Places to Live