

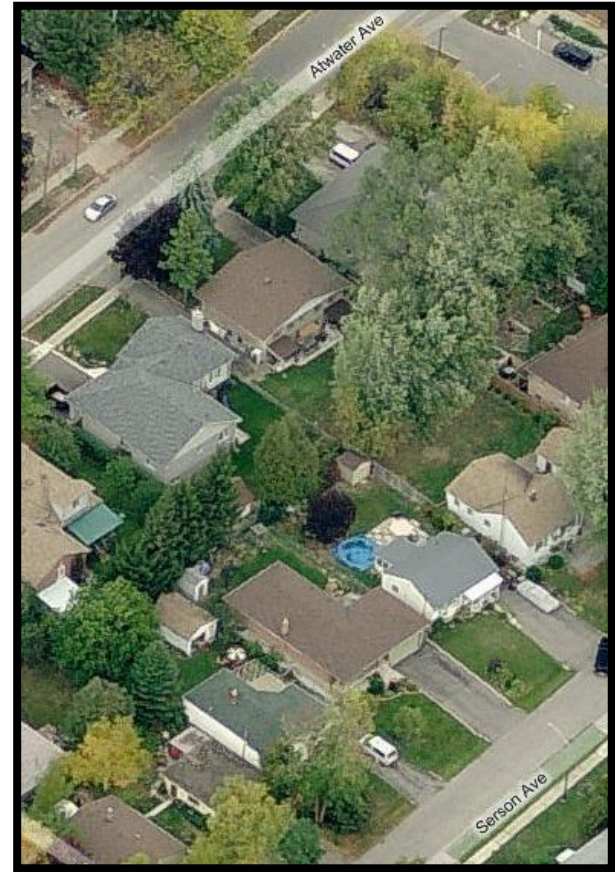


Tomatoes or Trees: Meeting Urban Agriculture and Urban Forestry Goals in the Same Backyard

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Residential Land

- ▶ Increasing interest in both urban agriculture and urban forests
- ▶ Local residents (and their yards) can play a big role in achieving broader goals
- ▶ Basic conflicts between trees and many sun loving edible plants



Residential Landscaping

- ▶ Urban agricultural often focuses on community gardens
- ▶ Urban forestry explores tree on public land or at neighborhood scale
- ▶ Property-level research focused on species inventories; lawn grass behaviour; use of water and other inputs

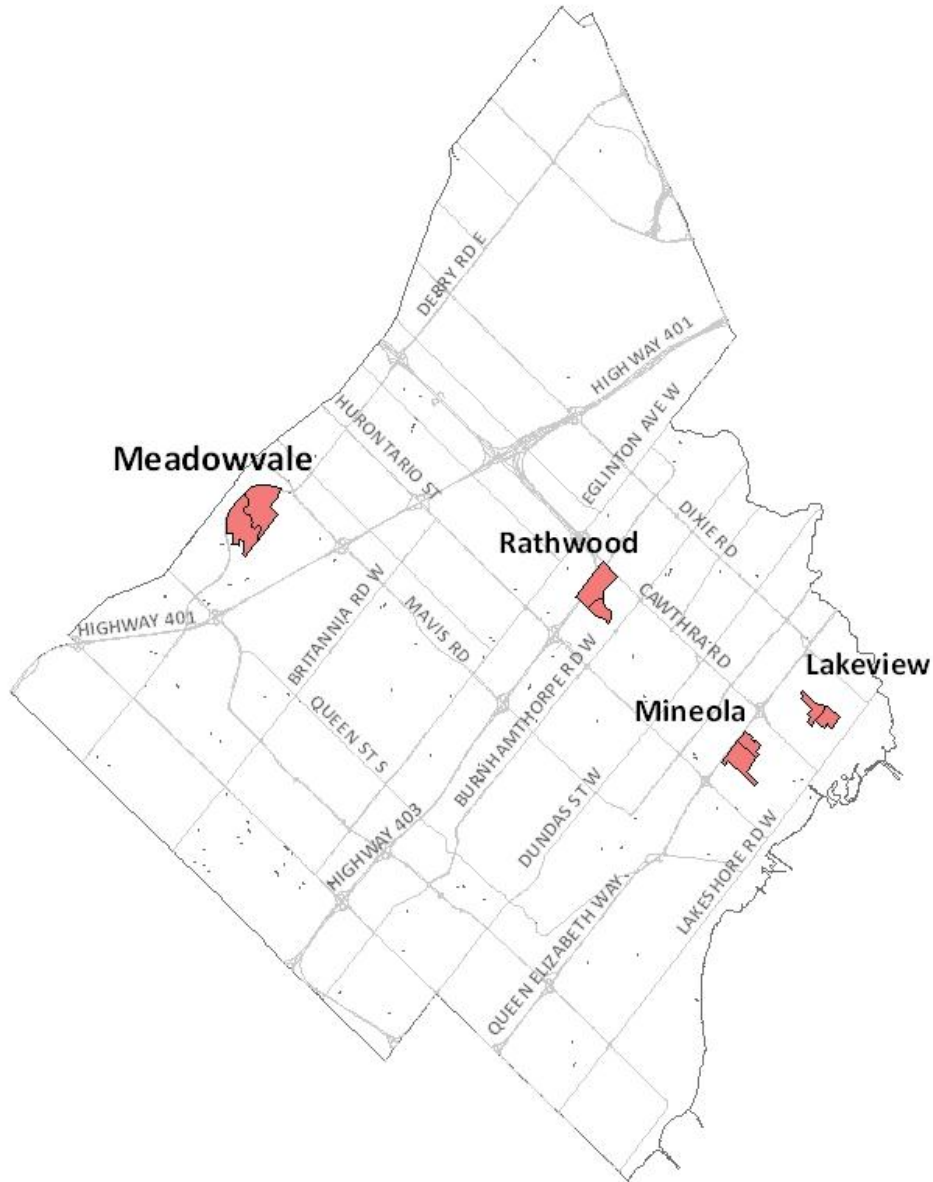


Research Questions

1. What are the basic characteristics of home-based edible gardens?
2. Which households are more likely to have edible gardens?
3. Is there a conflict between edible gardens and trees?
 - ▶ Actual tree presence, tree preferences, and urban forestry policy attitudes



Study Area: Mississauga, Ontario



Neighborhood Characteristics

	Median House Value (CAD)	Average Household Income (CAD)	Houses Constructed Prior to 1971	Tree Canopy Extent and Age
Lakeview	350,366	66,447	87%	Mature
Rathwood	303,707	63,520	9%	Sparse, Young
Mineola	581,419	138,103	80%	Plentiful, Mature
Meadowvale	433,798	152,765	6%	Very Sparse, Young



Methods: Survey

- ▶ Mailed to all households in on-the-ground homes within four target neighbourhoods
 - ▶ Summer 2011
- ▶ Asked about edible gardening activities; attitudes, activities related to trees; and household demographics
- ▶ Response rate of 48%
 - ▶ 647 returned surveys
- ▶ Follow-up interviews with 43 respondents



Methods: Analysis

Q1. Basic survey summary

Q2. Cross-tabulations comparing presence of edible gardens and household characteristics

Q3. Cross-tabulations comparing presence of edible gardens and actual tree presence, preferences for trees, and attitudes towards urban forestry policy



Households Variables: Q2

Name	Description
Neighborhood	4 target neighborhoods
House Type	detached, semi-detached, townhome
Yard Responsibility	resident, landlord, condo association
Time in House	years
Income	Canadian Dollars (CAD)
University Degree	Yes/No
Children Present in Household	Yes/No
Seniors Present in Household	Yes/No
British	Yes/No
European	Yes/No



1. What are the basic characteristics of home-based edible gardens?

	Households with Edible Garden	Average Years w/ Edible Garden	Location of Edible Plants	
			In the Ground	In Containers
Lakeview	61%	22	95%	19%
Rathwood	44%	12	84%	33%
Mineola	57%	20	82%	39%
Meadowvale	48%	8	86%	35%



2. Which households are more likely to have edible gardens?

Variable	Cramer's V	Description
Neighborhood	0.128	Lakeview, Mineola
House Type	0.154	Detached
Yard Responsibility	0.169	Resident
Years in House		
Income		
University Degree		
Children in Household		
Seniors in Household		
British		
European	0.087	Yes

All significant at $p = 0.05$, bold indicates significant at $p = 0.01$



2. Which households are more likely to have edible gardens?

Variable	Lakeview	Rathwood	Mineola	Meadowvale
House Type		Detached		
Yard Responsibility				
Income		Higher		Lower
University Degree	Yes			
Children Present in Household				Yes

All significant at $p = 0.05$, bold indicates significant at $p = 0.01$



3. Is there a conflict between edible gardens and trees?

No relationship between presence of edible gardens and

- Actual number of trees in yard
- Desire for trees or sunlight in yard

Policy	Lakeview	Rathwood	Mineola	Meadwovale
Municipality plant more trees	++		++	++
Municipality provide trees at low costs	+	+	++	++
Private tree by-law: No cutting		-	++	++

➤ indicates positive relationship with edible gardening; - indicates negative relationship

Conclusions

- ▶ Approximately half of respondents have edible gardens
 - ▶ Long-time gardeners
- ▶ More likely to have edible gardens:
 - ▶ Older neighbourhood
 - ▶ Detached House
 - ▶ Resident responsible for yard
- ▶ Presence of seniors not significant
- ▶ Income relationships mixed



Conclusions

Those with edible gardens:

- ▶ No difference in actual number of trees
 - ▶ Have same preferences for backyard trees and sun
 - ▶ Are more supportive of tree planting and protection policies
-
- ▶ Suggests that some residents are more interested in gardening and landscaping activities in general



Next Steps: Digging deeper

- ▶ Look at relationship between yard size, tree density, and canopy cover on presence of edible gardens
- ▶ Follow-up interviews
 - ▶ motivations; sources of information
 - ▶ perceptions of planting space
 - ▶ Is choice between default land cover (grass) and other vegetation?



A photograph of a wooden deck with a potted plant and a white chair. The plant is in a terracotta pot and has large green leaves and yellow flowers. A white plastic chair is visible in the background. The deck is made of weathered wooden planks. A window with a screen is visible on the right side of the image.

**Thank you:
Elizabeth Bang and Ray Ziemba,
and all of the survey participants**

**Funding for this project provided by the
Canadian Social Science and Humanities Research Council**

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