RESEARCH SUMMARY

Measuring Farmland Loss

Quantifying the Conversion of Prime Agricultural Land to Non-Farmland Uses Across Southern Ontario

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CONTEXT

Ontario's agricultural industry depends on the availability of quality farmland. Farmland faces pressure from urban growth and other development. While the Provincial Policy Statement and Greenbelt Plan aim to protect prime agricultural land, municipal land use decisions can still lead to its long-term loss.

HOW WE MEASURED FARMLAND LOSS

This study measures farmland loss through Official Plan Amendments (OPAs)—formal changes to municipal Official Plans that redesignate land from agricultural to non-agricultural uses.

Our approach:

- Reviewed OPAs approved between 2000 and 2017 across 36 counties/regions in Southern Ontario
- Extracted data on the location, size, and proposed non-farm use of converted lands
- Assessed soil capability using the Canada Land Inventory (Classes 1–7) to identify prime agricultural land
- Validated data with municipal staff and reconciled inconsistencies

KEY FINDINGS

29,000+ hectares of prime agricultural land were converted to non-agricultural uses through 545 separate OPAs between 2000 and 2017.

83.5% of prime agricultural land loss occurred in Central Ontario; **12.1%** in Southwestern Ontario; **4.4%** in Southeastern Ontario.

Most large-scale loss occurred in Central Ontario due to urban boundary expansions. Rural counties in the west and east experienced mainly small-scale conversions for single uses.

Peak annual losses occurred in 2006, 2013, and 2015 during Municipal Comprehensive Reviews (MCRs) in York, Halton, and Durham Regions.

Highest farmland loss (ha): York Region (7,989 ha), Peel Region (3,442 ha), Halton Region (2,938 ha).

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WHY IT MATTERS

- Supports food security and local food systems
- Protects long-term economic viability
- Preserves environmental benefits and ecosystem services
- Supports healthy, resilient communities

DATA SOURCES & METHODS

Official Plan Amendments (OPAs): Primary data source capturing land-use redesignations approved by municipalities.

Remote Sensing & GIS: Used to map conversions and analyze spatial patterns.

Planning & Land Use Data: Includes official plans, zoning, and development applications.

MOVING FORWARD

To make informed decisions, we need:

- A standardized definition of farmland
- Consistent data collection and tools
- Regular monitoring and transparent reporting
- Stronger integration into land use planning and policy

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