

# Connecting Local Land Use Planning with Predictive and Analytical Tools for Farmland



*Working Group on Local Food and Farming*

# What Tools?

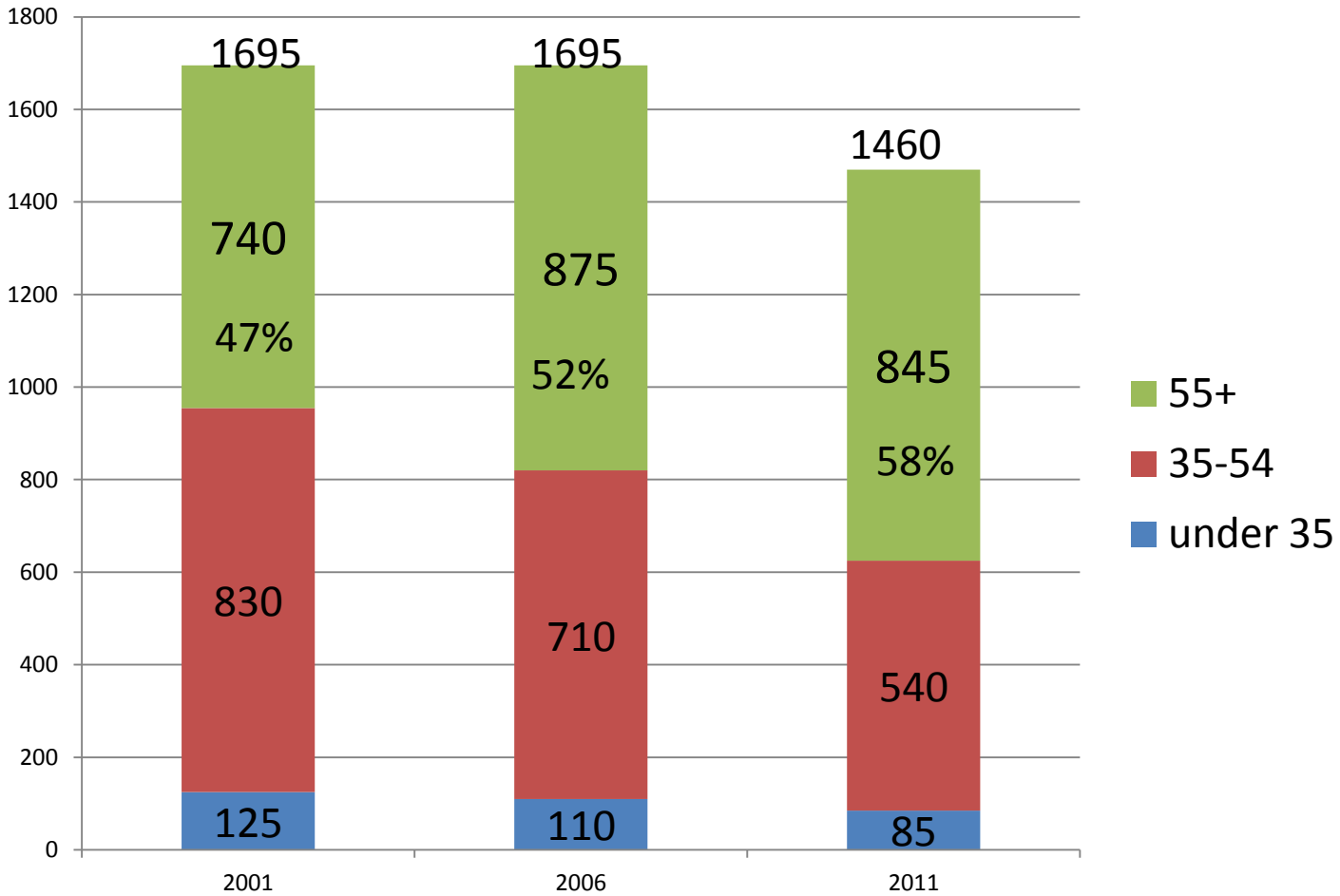
1. Historical records and future projections of:
  - Farmers
  - Farm businesses
  - Acres of farmland
2. Assessment of whether we have enough land in production to feed ourselves
3. Assessment of existing farmland protection

# #1

Historical/projected trends in...

- Farmers
- Farm businesses
- Acres of farmland

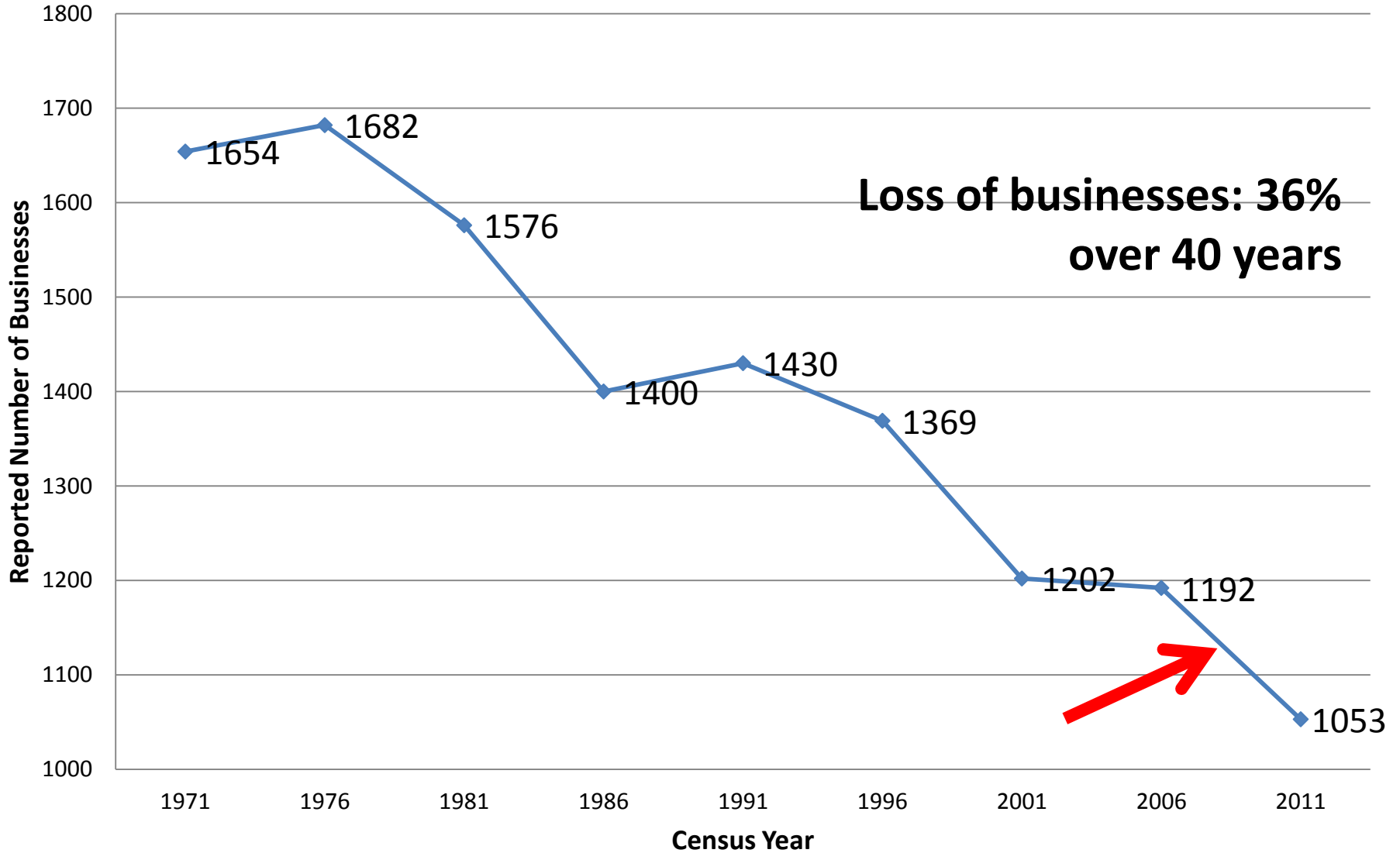
# Peterborough County - Age of Farmers 2001 - 2011



## Number of Farmers in 2036 - projected

Age	2011	2021	2031	2036
Under 35	85	85	85	85
35-54	540	255	213	183
Over 55	845	693	474	409
	<b>1,460</b>	<b>1,033</b>	<b>772</b>	<b>677</b>

# Peterborough County - Number of Farm Businesses 1971 - 2011

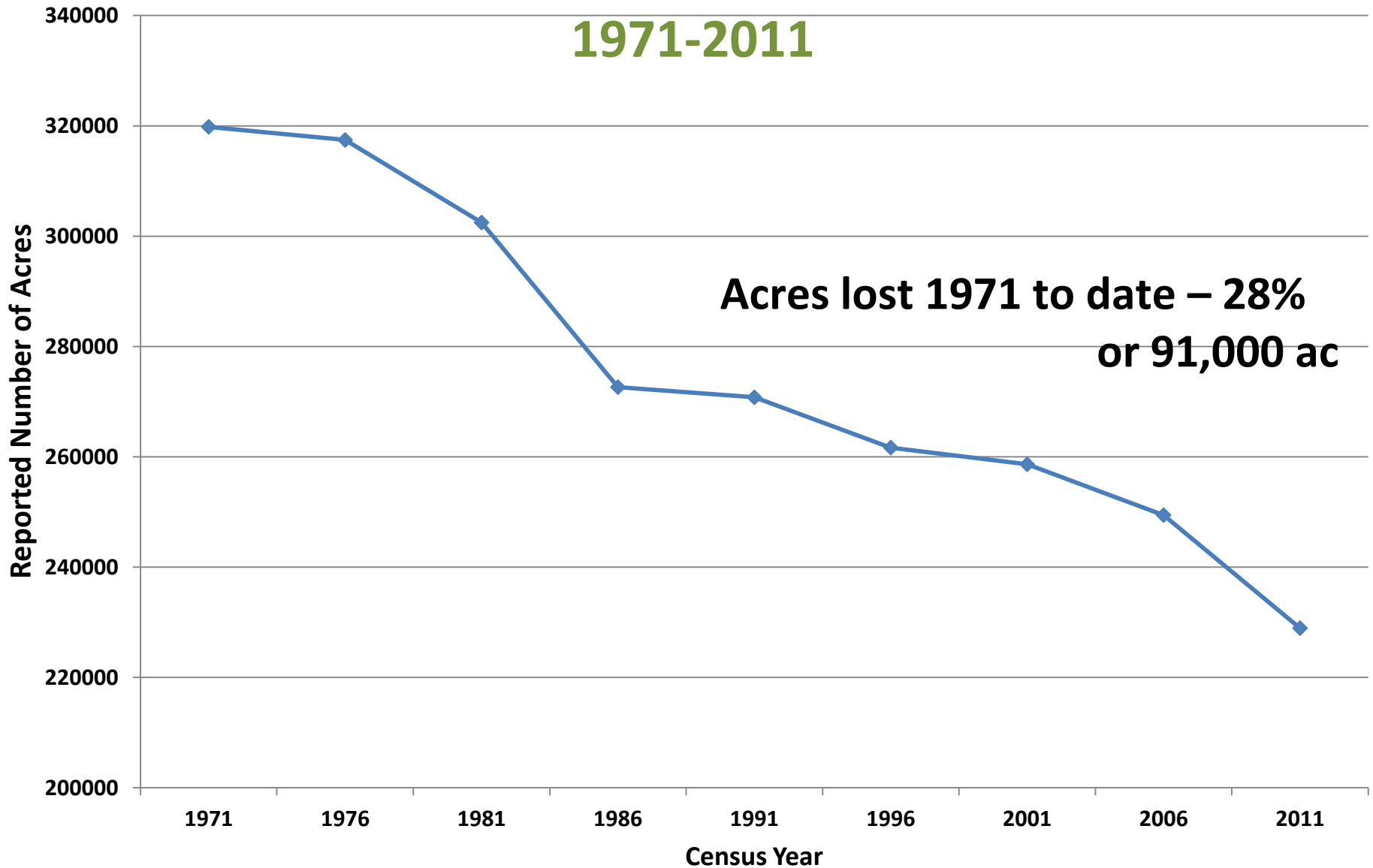


# Peterborough County - Number of Farm Businesses 1971 - 2011



# Peterborough County - Acres in Production

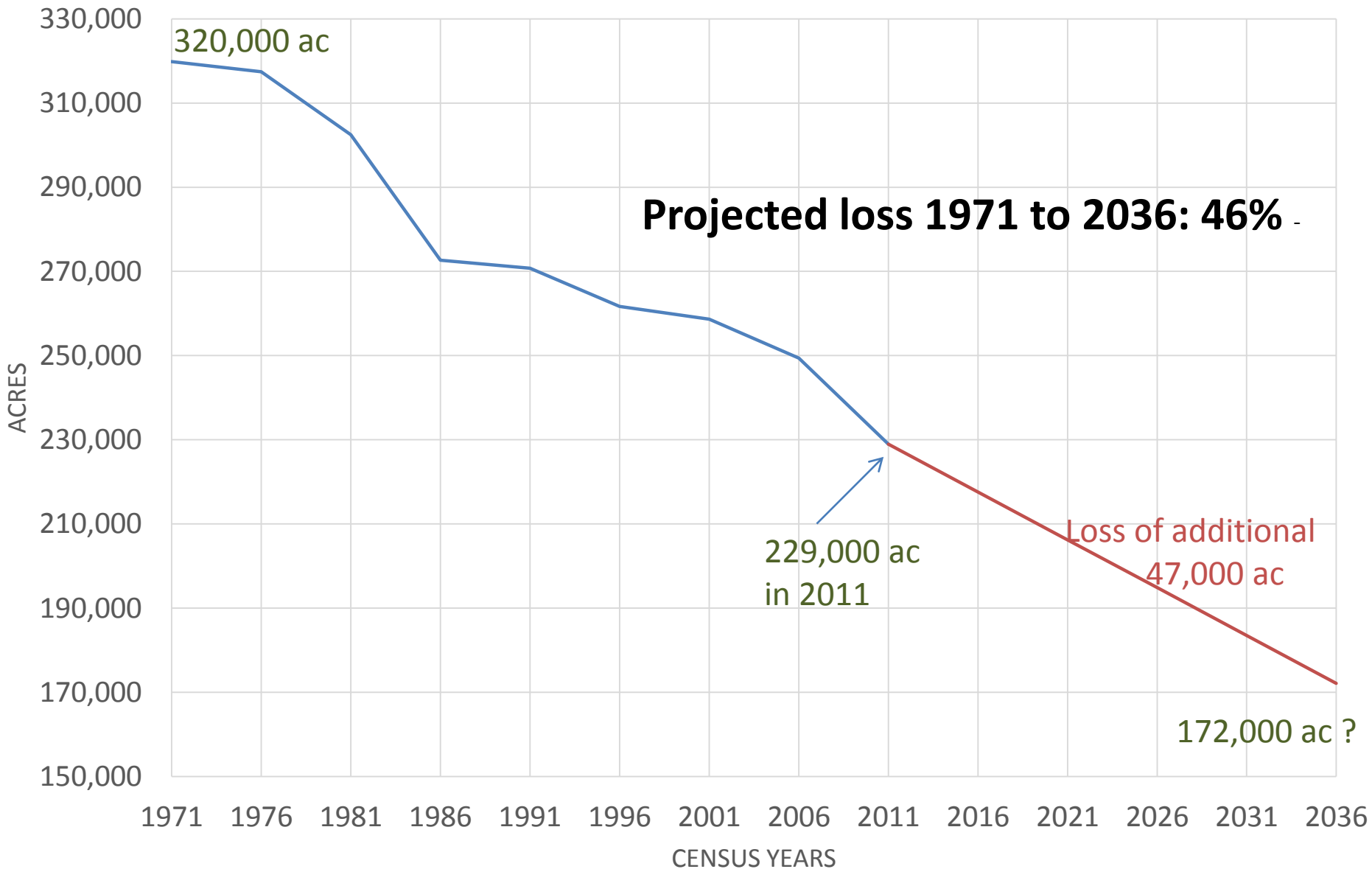
1971-2011





# Peterborough County - Acres in Production

— # of Acres — Projected Acres



# Main reasons...

- Marginal land
- Development
- Sales to non-farmers

# Summary

Projected trends from 2011 to 2036...

- Farmers – 50% loss plus
- Farm businesses – 50% loss?
- Farmland acres – 25% loss

#2

Do we have enough  
land in production  
need to feed  
ourselves?

# 2011 OFT Study Model

Food Group	Current Land Used	Land Required	Net excess/(deficit)
Vegetables and Fruit	519 ac	3,034 ac	(2,515) ac
Cereals	10,734	6348	4,386
Dairy products, Meat and alternatives	140,369	137,068	3,301
<b>Total</b>	<b>151,622</b>	<b>146,450</b>	<b>5,172 ac excess</b>
<b>50% cash crops not included (available)</b>	<b>14,454 ac</b>		

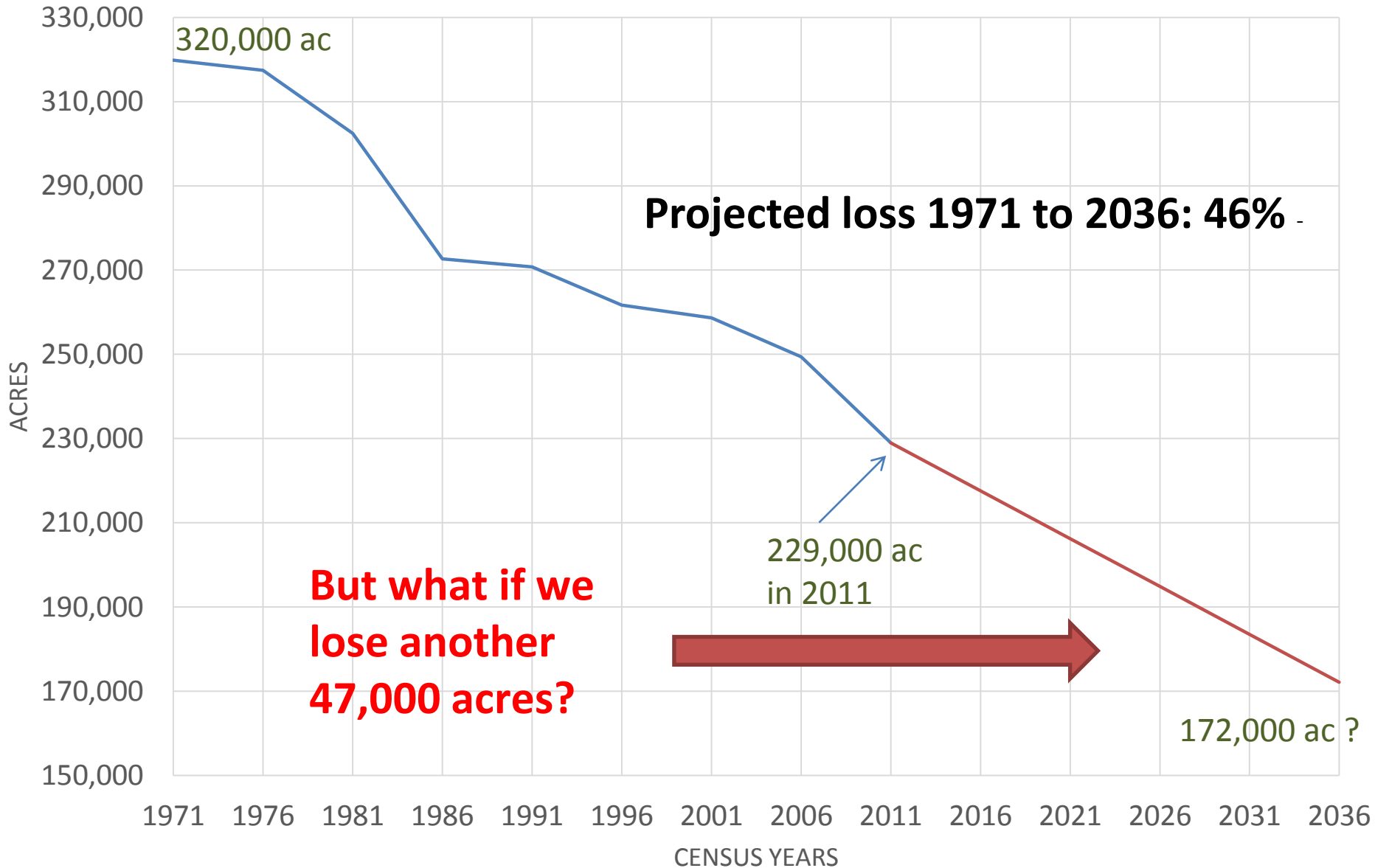
# 2036 predicted: OFT Study Model

Food Group	Land in Use	Land Required	Net excess/(deficit)
Vegetables and Fruit	519 ac	3,962 ac	(3,443) ac
Cereals	10,734	8,324	2,410 ac
Dairy products, Meat and alternatives	140,369	181,895	(41,526) ac
Sub-Total	151,622	194,181	<b>(42,559) ac deficit</b>
50% excess cash crops included	14,454 ac		<b>14,454 ac converted</b>
Total	166,116	194,181	<b>(28,065) ac deficit</b>

Assumptions: same production levels as 2011

# Peterborough County - Acres in Production

— # of Acres — Projected Acres



# Acres needed to feed a person

- OFT model applied to Peterborough: suggests just over one acre per person

- This is in line with 2006 Cornell study:

*Testing a complete-diet model for estimating the land resource requirements of food consumption and agricultural carrying capacity: The **New York State** example*

Renewable Agriculture and Food Systems: 22(2); 145–153



#3

# Assessment of existing farmland protection

# Provincial Policy Statement

*Section 2.3 of the PPS:*

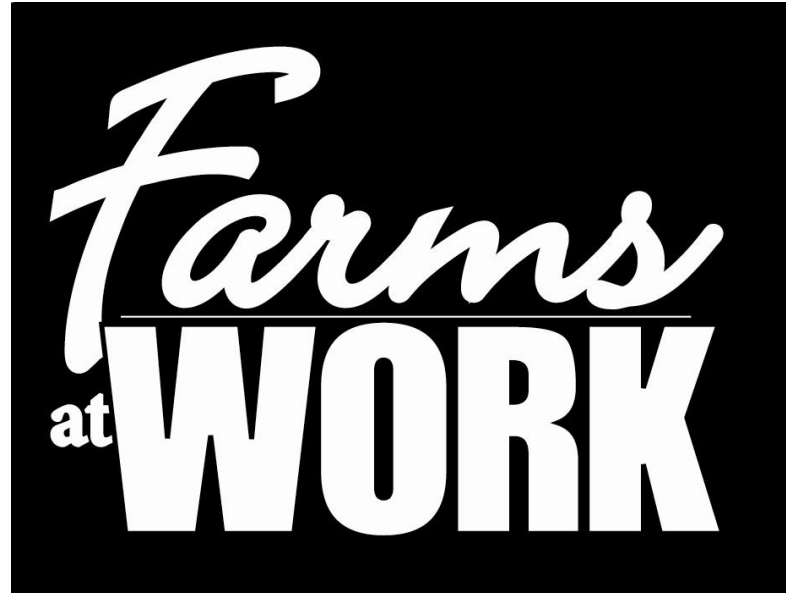
***Prime agricultural land*** “shall be protected for long-term use for agriculture”. Prime agricultural areas are areas where prime agricultural lands predominate. Specialty crop areas shall be given the highest priority for protection, followed by ***Classes 1, 2 and 3 soils***, in this order of priority.

# Peterborough County - Agricultural Land Use 2011

	Acres	Percent
Crops	118,000	52%
Pasture	57,000	25%
Wetland, woodlot, Xmas trees, other	54,000	23%
Total	228,000	100%

## Prime Ag in Peterborough Co

- only 41% of the farmland in the County is afforded the protection of the PPS as “Agricultural”
- Peterborough is known for pastured livestock – how much pasture is protected?



[farmsatwork.ca](http://farmsatwork.ca)