

# Is Nova Scotia Eating Local?



# Presentation Outline

- Introduction
- Economics
- Social Benefits
- Self reliance
- Transportation & Energy
- How far is our food travelling?
- Case studies
- Conclusions & Recommendations

# Food Miles Project

- Joint initiative: Ecology Action Centre & Nova Scotia Federation of Agriculture (funded by AAFC's Agriculture and Agri-Food Program)
- Three year project
- Began in April 2007
- Three main components: research, education and policy



# Food Miles



## Overarching Research Question

What are the social, economic, and environmental impacts of a primarily imported diet as compared to a more locally based diet?

# Goals & Vision

- Improve farm viability
- Develop a healthy and robust farm/food system
- Maintain a healthy environment
- Increase understanding of the benefits of local food

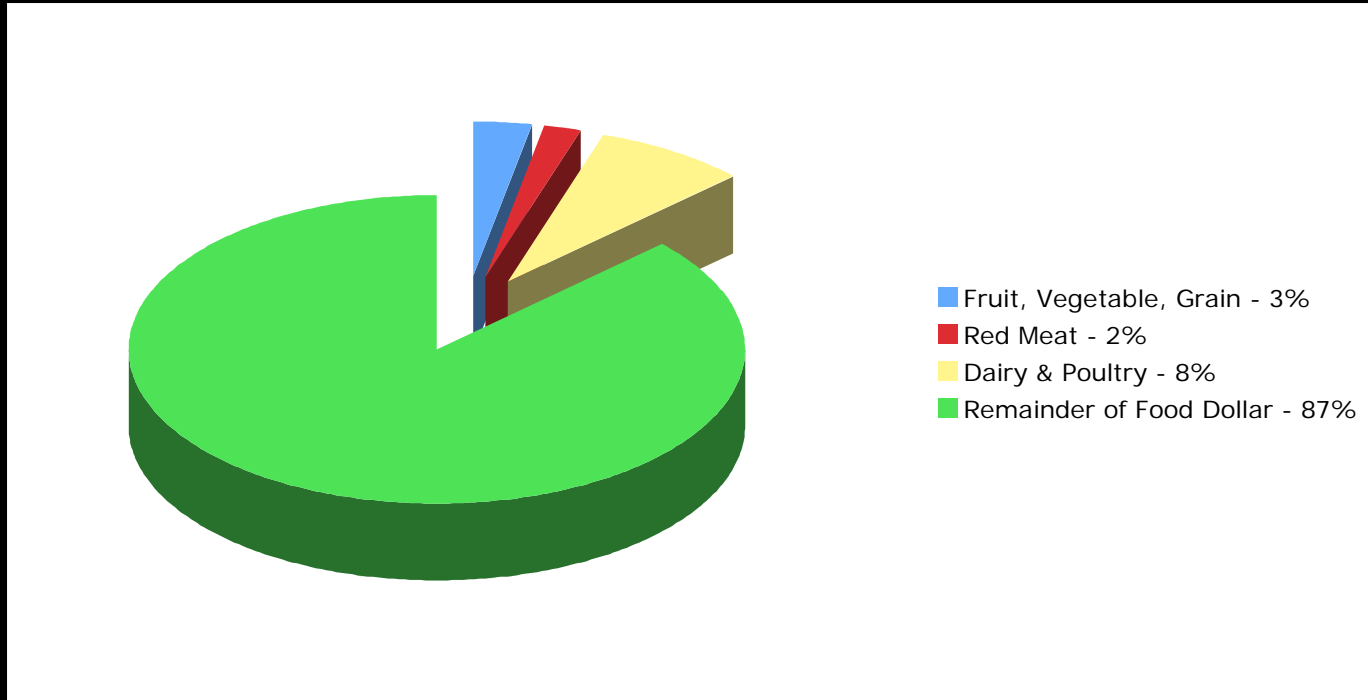
# Food Miles



- Food Miles: the distance a given food travels from farm to plate
- Iowa study: Food items traveled an average of 1500 miles (2400 km) from farm to plate.
- Waterloo study: 58 food items traveled an average of 4,497 km and generated 51,709 tonnes of greenhouse gas emissions. All 58 items could potentially be grown in the region.

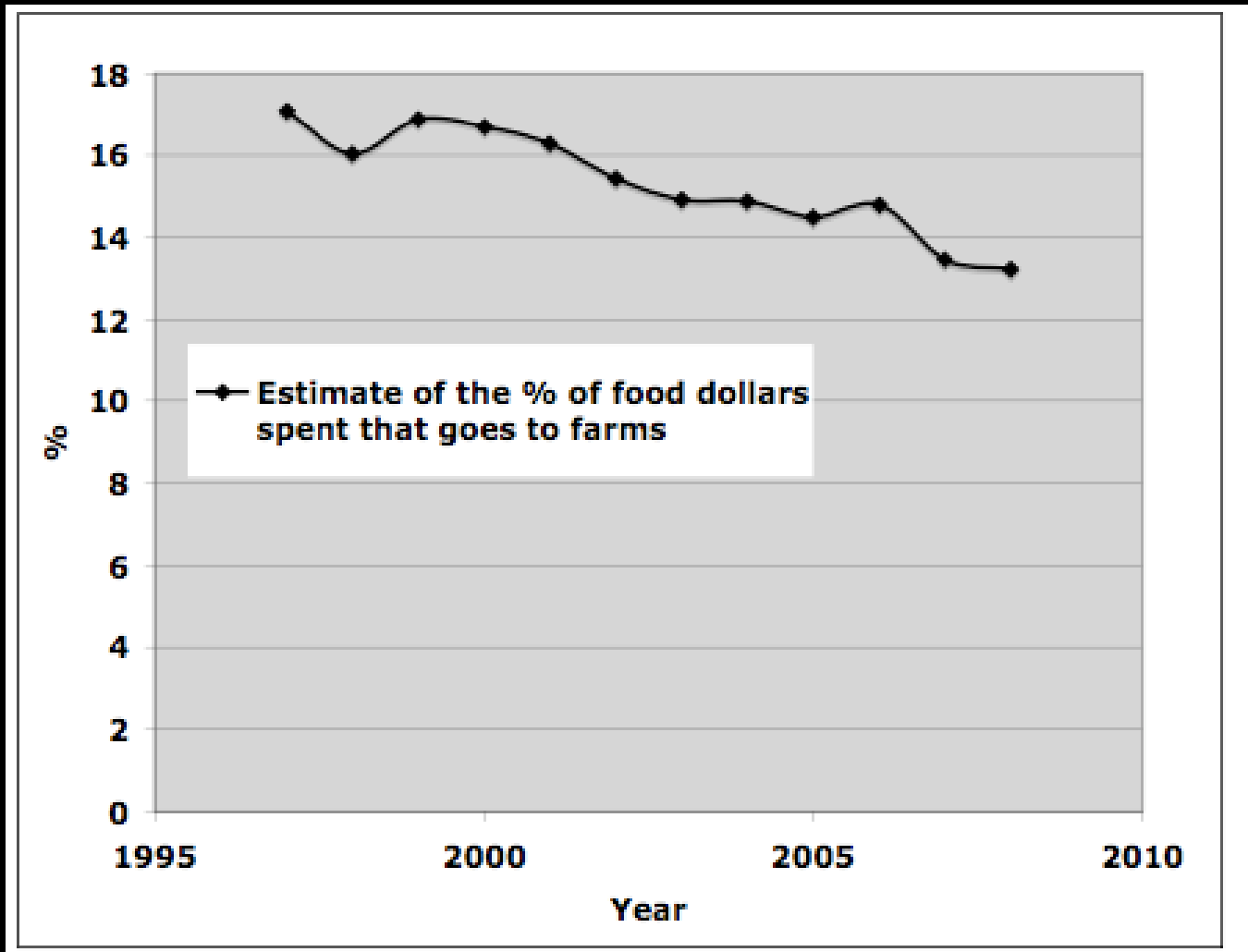
# Economic Impacts

# Nova Scotia Food Dollar

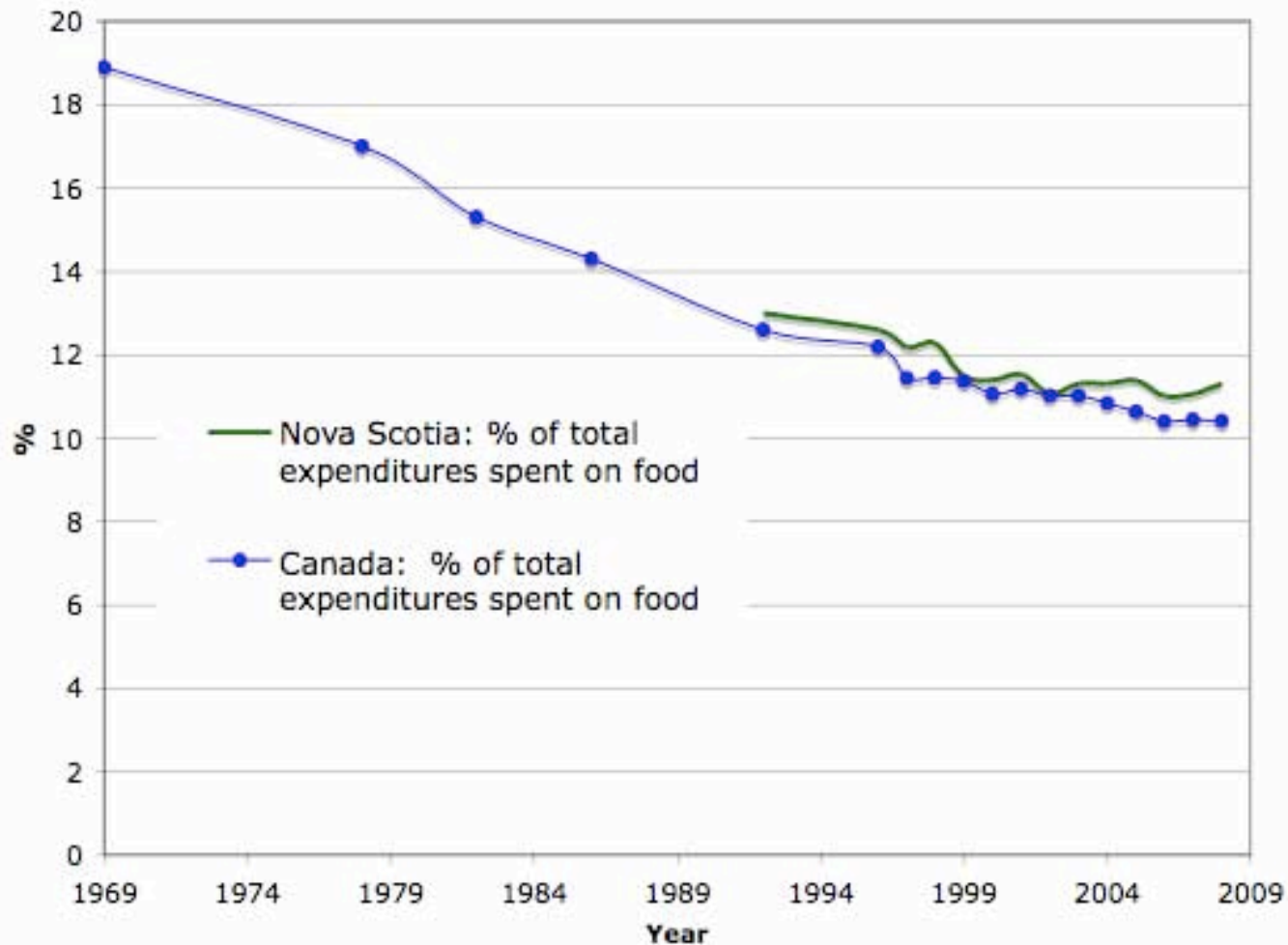


Only 13% of the food dollar returned to NS farmers in 2008.  
This is down from 17% in 1997.



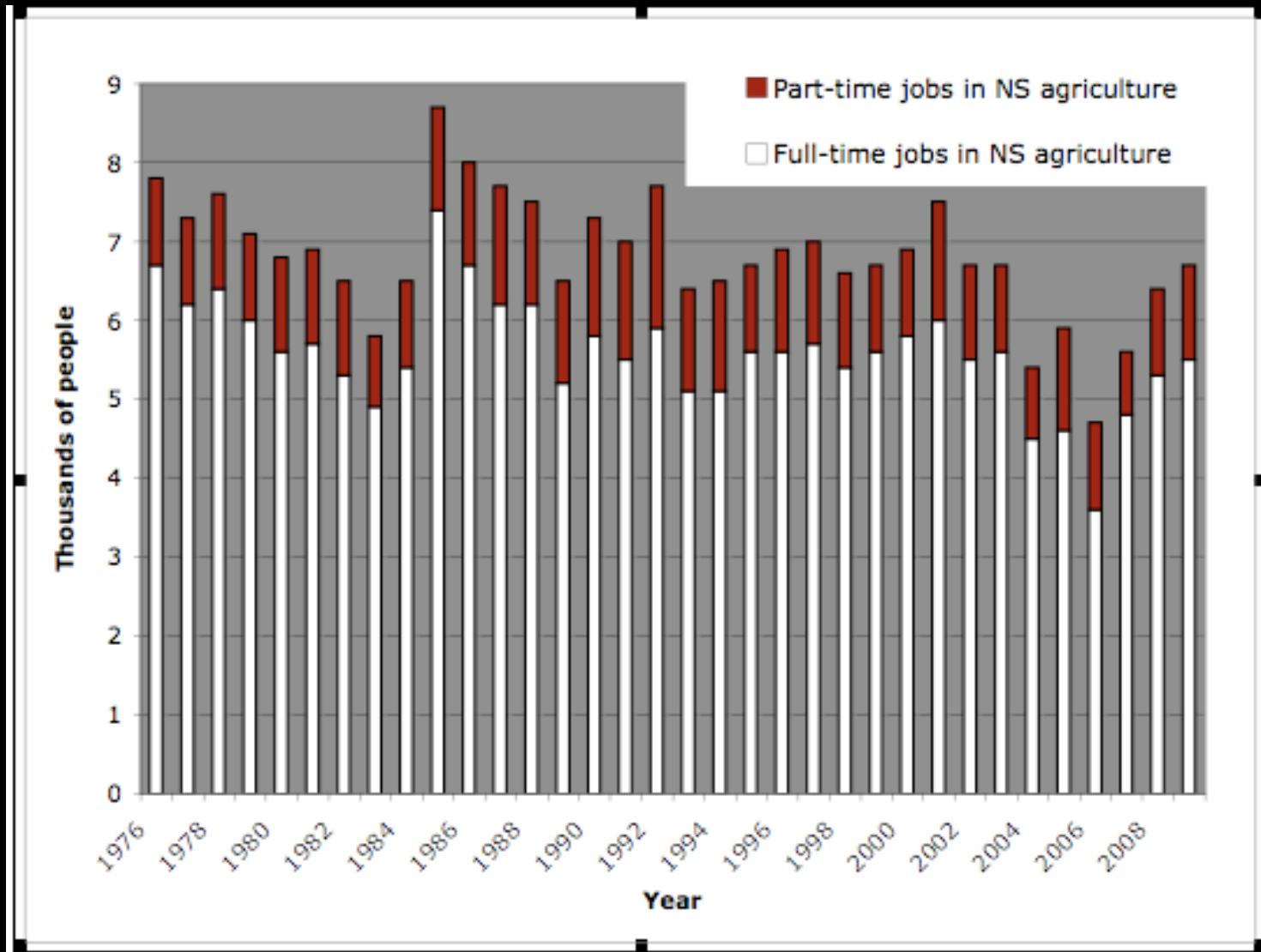


Percentage of food dollar that returned to farms  
1997-2008



Percentage of total expenditures spent on food

# Jobs in Agriculture in NS

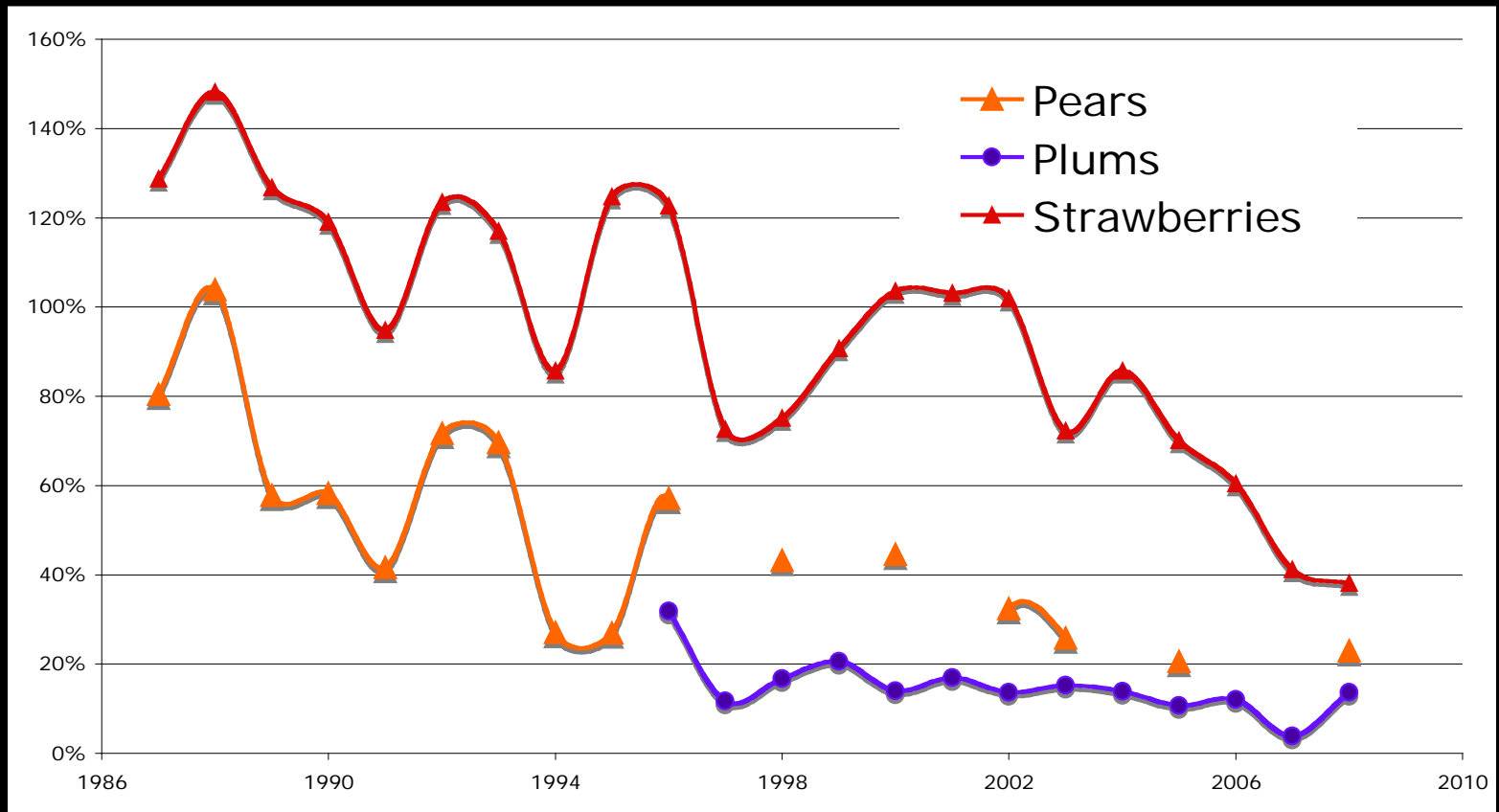


# Social Benefits of a more locally based diet

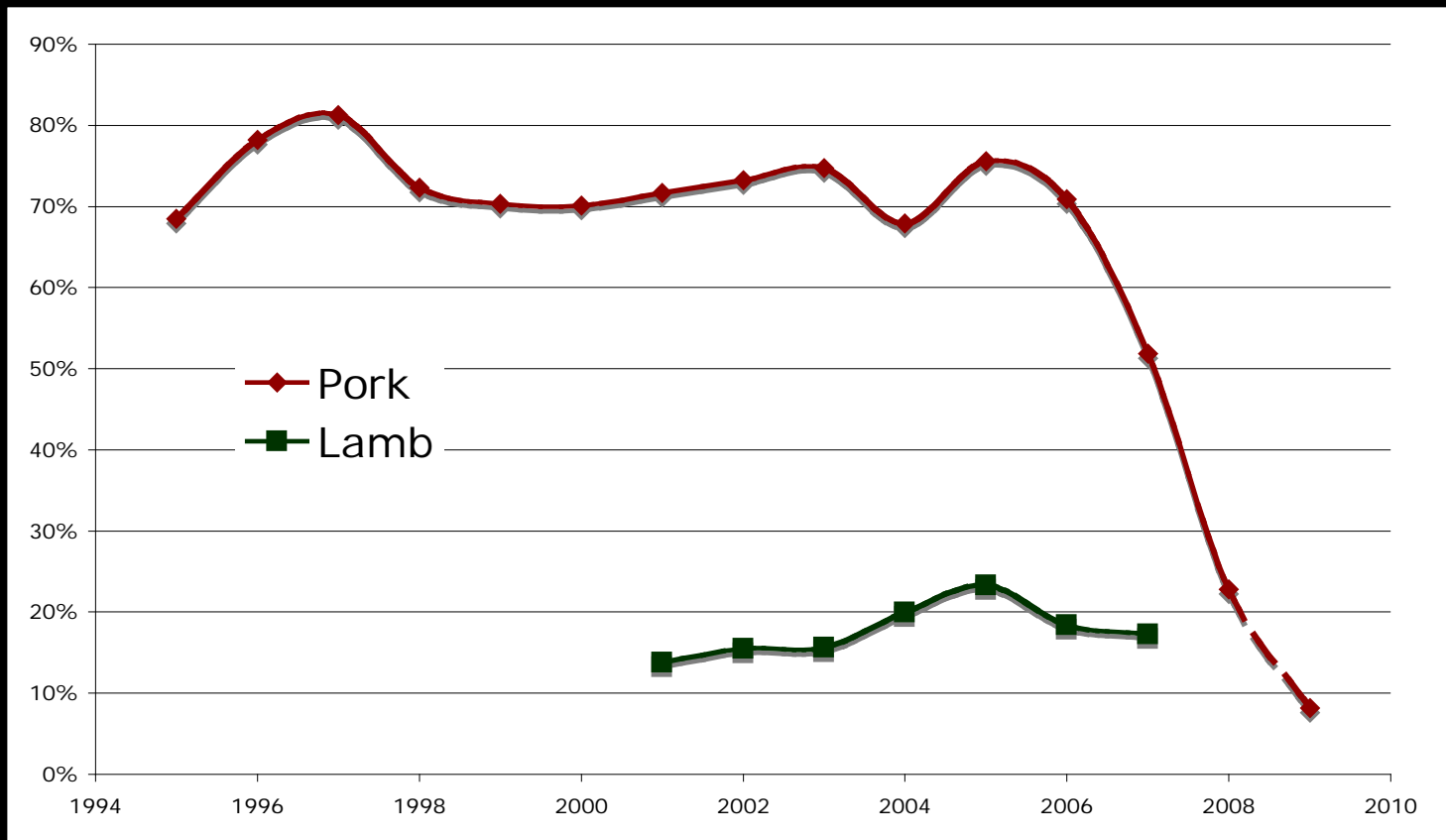
- Vibrant rural communities
  - Employment, stability, maintenance of rural infrastructure
- Benefits for people and relationships
  - Farming culture, social capital, mutual reliance, trust
- Province-wide benefits
  - Food sovereignty, integrity, variety and choice, stewardship



# Fruit Self-Reliance

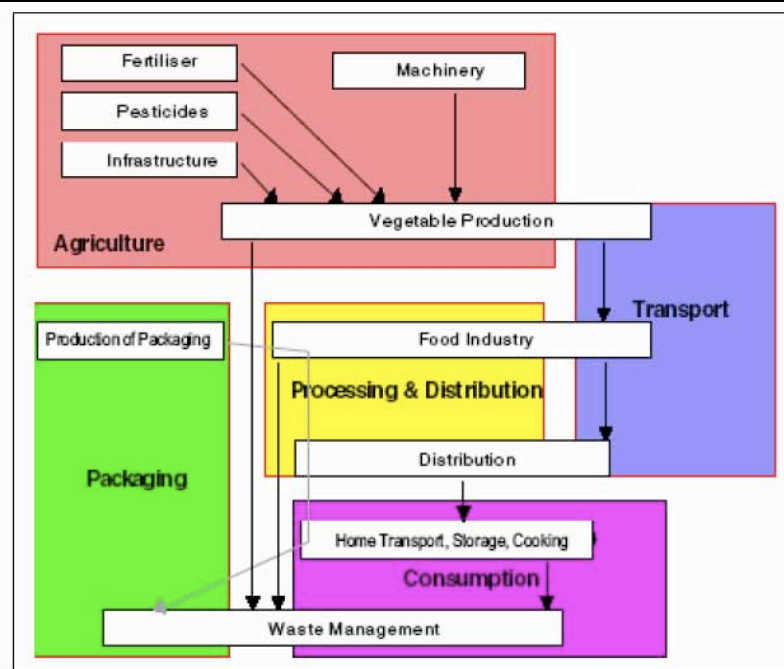


# Pork & Lamb Self-Reliance



# Transportation & Energy

- Reduce emissions due to transportation, but not at expense of other stages of life cycle



**Figure A 5: Product system for vegetable purchases**

(split into modules according to determinants of environmental impacts and corresponding product characteristics) (Source: Jungbluth, Tietje and Sholz 2000)

# Emissions by Mode of Transport

Mode	GHG Emissions (kg CO <sub>2</sub> e per tonne-kilometre)
Air (short-haul)	1.439
Ship	0.222
Truck	0.204
Rail	0.017



A single unit or combination truck imposes  
the equivalent amount of damage to roads  
as 9,600 cars



# Redundant Trade

“Americans import Danish sugar cookies, and Danes import American sugar cookies. Exchanging recipes would surely be more efficient.”

- Herman Daly



# Reducing Energy Use in Life cycle

- Reduce the consumption of junk food;
- Reduce use of synthetic fertilizer;
- Reduce reliance on refrigeration and freezing, at home, in store, and as part of long-distance transport;
- Reduce food waste because it accounts for one quarter of all food sold; and
- Shift diets to correspond to food available locally in season.

# The Weekly Food Basket

66 items

- Average distance traveled: 3976 km
- Total distance traveled: 30,666 km
- Total GHG emissions: 5.9 kg CO<sub>2</sub>e

Local Basket:

- Average distance traveled: 350 km
- Total distance traveled: 4988 km
- Total GHG emissions: 1.0 kg CO<sub>2</sub>e



# Case Studies: Beef

- 90-99% of beef eaten in NS is imported. Beef imports create 1.14 kg CO<sub>2</sub>e emissions per kg of beef just for transportation.

NS produced beef could:

- Increase soil quality and revitalize rural communities
- Use underutilized land and capacity
- Increase farm cash receipts from \$22.5 million to *at least* \$90 million/year and full-year equivalent employment from 448 jobs to about 1,774 jobs if we produced all of our own beef.

# Case Studies: Lamb

- We produce 15 - 18% of the lamb we consume in Nova Scotia, and import the rest. On average lamb imported to Nova Scotia creates 4.08 kg of CO<sub>2</sub>e emissions per kg of lamb imported.

Sheep production could:

- Have great potential for improving soil quality
- Increase farm cash receipts from \$2 million to \$10.7 million/year and employment would increase from 40 full year equivalent jobs to 213 full year equivalent jobs, if we produced all our own lamb.

# Case studies: Fruit & Vegetables

- Less than one-third (29%) of Nova Scotians over age 12 eat the recommended 5-10 servings of fruit and vegetables every day. This compares to 35% nationally.
- Potential to improve our health and farmers' incomes at the same time.

# Case Studies: Fruit & Vegetable

- We produce 2x the amount of apples we can eat, yet we import about 50% of apples we eat: prime example of redundant trade
- Imported apples travel 7443 km on average, producing 1.60 kg CO<sub>2</sub>e per 1 kg of apples





# Individual Actions to Support Local, Sustainable Agriculture

- Shop at farmers' markets, local retailers, join a CSA or a buying club
- Ask questions at the grocery store, local institutions and your favourite restaurants.  
Support businesses that support local farmers
- Plant a garden
- Join one of the many organizations working on agricultural issues

# Recommendations for the Private Sector

- Greater transparency in food labelling and signage.
- Reduce food waste. Approximately 1/4 of all food is wasted.
- Conduct an audit of the food you currently purchase. Create a local, sustainable food procurement policy, with minimum targets that increase over time.
- Invest in the local food movement, for example, through Slow Money.

# Recommendations for Government

- Develop and adopt local, sustainable procurement policies.
- Invest in innovative ideas.
  - Matchmakers
  - Support for New Farmers
- Match food safety regulations to the scale of operations.
- Develop a federal and a provincial food policy that is based on the principles of food sovereignty. Include food in municipal planning strategies.

# Questions?

