

# Is there a role for government in assuring production-derived food quality?

Brian Innes, M.Sc. Candidate, Agricultural Economics



## INTRODUCTION

- Canadian consumers are increasingly interested in the health, social, and environmental consequences of food choices- consumer demand for production-derived food attributes extends beyond organic and includes things such as environmentally sustainable and pesticide-free production.
- Rapid expansion in the number and variety of production-derived claims has occurred; it is unclear if and how consumers see these claims as credible.
- Credible quality verification facilitates the functioning of market mechanisms and can improve social welfare.

## Government may have a role if:

1. Consumers trust organizations differently to verify production-derived food quality,
2. Consumer willingness to pay for production-derived attributes is affected by the verifying organization.

## METHODOLOGY

- Internet survey of 480 respondents – representative of English speaking Canadians.
- Comprised of attitudinal, socio-demographic, and discrete choice experiment questions.
- Respondents were asked to choose between different loaves of bread
- The loaves of bread contained wheat that was produced using environmentally sustainable and/or pesticide-free grains verified by different types of organizations: government, farmer, third party, supermarket, or bakery as shown:

Features	A	B	C	D
Organization verifying	Supermarket Verified	Farmer Verified	Bakery Verified	
Pesticide Free			✓	I would not purchase any of these products.
Environmentally Sustainable	✓	✓		
Price	\$2.99	\$4.99	\$2.99	

I would choose... Option A Option B Option C Option D

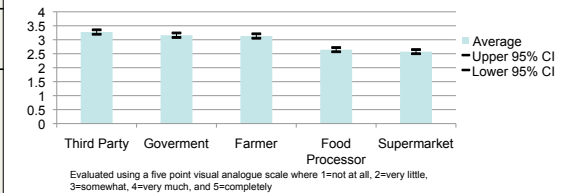
- A latent class multinomial logit model was used to analyze the data.

## RESULTS

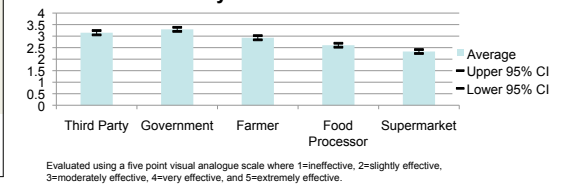
Willingness to Pay for Bread Attributes					
\$ per loaf of bread					
Class	Concerned Shopper	Independent Verification Seeker	Label Believer	Defer to Farmer	Not Interested
Pesticide free	10.26***	3.13***	2.27***	0.40***	-0.18***
Sustainable	6.34***	2.42***	1.45***	0.28*	0.07
Verified by:					
Government	5.13***	4.30***	0.06***	-0.39***	0.08***
Farmer	0.85	-1.05***	-0.34	1.22***	0.40
Third Party	-3.80***	3.34***	0.18***	-0.48***	-0.12***
Supermarket	-3.55***	-4.27***	0.22***	-0.68***	0.04*
Bakery <sup>1</sup>	1.37	-2.32	-0.12	0.34	-0.40
Average Class Probability	0.220	0.120	0.352	0.123	0.186

<sup>1</sup>as the estimate for bakery= -org1-org2-org3-org4, significance is not applicable.  
\*\*\*, \*\*, \* denote significance at the 10 percent, 5 percent, and 1 percent level respectively for the attribute parameter in the WTP ratio

### Level of trust in verifying organizations for accurate information about farming methods



### Perceived effectiveness at creating an environmentally sustainable standard



- Government, third party and farmer organizations are equally trusted.
- A government standard is seen as most efficacious.
- Government verification is significantly valued by the *concerned shopper* and *independent verification seeker* classes; combined this represents 34% of respondents.
- Government verification is valued most by the *concerned shopper* class that most values bread with grains produced without pesticides or in an environmentally sustainable way
- Third Party and Supermarket verification have a negative value for the *concerned shopper* class.

## POLICY IMPLICATIONS

- Government verification of production-derived food quality would provide significant benefit over the status quo of supermarket and third party schemes; government may have a role in quality assurance.
- The reasons for this benefit is unclear; trust does not explain everything, ensuring standards are accurate may contribute.
- Future research should more thoroughly examine the costs/benefits of specific roles for government in quality verification

Funding was provided by:



Social Sciences and Humanities  
Research Council of Canada  
Agriculture and Agri-Food Canada

Conseil de recherches en  
sciences humaines du Canada  
Agriculture et Agroalimentaire Canada



Special thanks to  
advisor Dr. Jill Hobbs