

# Consumer Knowledge and Attitudes towards Food Traceability: a Comparison between the European Union, China and North America

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- Background
- Research questions
- Method
- Results
- Discussion
- Conclusion

# Food traceability: definitions

- Food traceability is "*the ability to trace and follow a food, feed, food-producing animal or substance through all stages of production and distribution*" (official definition of the European Union)
- Public campaigns have often use the slogan: "From Farm to Fork"
- From the consumer perspective, it is a tool to guarantee *food safety* as well as a *credence attribute* (various sources)

# Food traceability: legislation

- European Union: Regulation n.178, 2002, food traceability is mandatory since 2005
- United States: Food Safety Modernization Act (FSMA), 2011
- Canada: Safe Food for Canadians Act (SFCA), 2012
- China: China's New Safety Law, 2009

## Outbreaks: Food Scandals

For example, the scandal of milk tainted with melamine in China (2008) or the Bovine Spongiform Encephalopathy in EU and USA (1986-2001)

## Demand Response

Short term: sharp decrease in trust in the food chain, increase risk perception, deep changes in purchasing habits. Long term: increasing demand for food safety and quality

## Supply Response

Short term: severe financial damage, shareholders' loss of confidence in the industry and the sector. Long term: exit from the market

# Food traceability as the answer to food scandals?

## Outbreaks: Food Scandals

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## Supply Response

Rapid withdrawal of the contaminated product from the market and rapid location of the defected batch

## Demand

Precise information will help the consumers to reduce loss of confidence and will reduce their risk perception

- What do consumers know about traceability and what are their attitudes towards it?
- How do knowledge and attitudes vary across world regions (Europe, China and North America)?
- Are consumers willing to pay for the extra cost of traced food?
- How does the willingness to pay (WTP) vary across different socio-economic segments of the population?

- Literature review of cross-sectional studies and meta-analyses published between 2003 and 2013
- Databases: Google Scholar and AgEcon
- Keywords: *food traceability*, *consumer attitudes* and *knowledge*
- Direct and indirect measurement of traceability: experimental design (USA) and surveys (China and EU)
- In surveys, traceability was measured by asking consumers what their knowledge and attitudes towards the concept of food traceability, and also of its attributes (like foods safety or origin).



- A total of 16 articles was selected: six were conducted in the European Union, 5 in China and 5 in North America (USA and Canada)
- Three European studies were cross-country (Cicia and Colantuoni, 2005; Giraud and Halawany, 2006; Kehagia et al. 2007)
- One study focused on different world's regions: Japan, Europe, USA, and Canada (Dickinson and Bailey, 2005)

- Consumers have positive attitudes towards food traceability, origin and safety
- Individuals who belong to consumer organizations are more familiar with the concept of food traceability
- Willingness to pay for traced food varies across regions (> in Southern regions)
- European consumers pay attention to origin and sometimes they associate food quality and safety to traditional production techniques

- Consumers are interested in food safety, but few read labels (especially for meat products)
- Few consumers are familiar with traceability
- Willingness to pay varies across segments of population: is higher with income and education levels, and for young adults
- Government and company certification systems are valued more than third party certification bodies

## Results: North America (USA and Canada)

- Consumers have positive attitudes towards food traceability, especially for meat
- Consumers associate food traceability to country of origin label (COOL)
- Consumers are willing to pay for traced foods
- There is a growing attention to labels for animal welfare

- Knowledge and attitudes vary *horizontally* (between countries within same population segments) and *vertically* (within countries between different population segments)
- Food scandals experienced by a country affect consumer attitudes towards traceability and its attributes
- Policy makers and private operators should work together to implement certification and quality assurance schemes, and labels that are easily understandable by consumers
- Comparative studies, exchanges of best practices and successful policies should be encouraged to increase food quality standards worldwide

# Conclusion and Further Analysis

- Although tracing a food along the chain is expensive, there is evidence that the burden of this cost can be partially sustained by consumers
- To increase WTP consumers should be able to recognize the value of traced food especially in countries where food legislation is still at an early stage
- There is need to understand who is "the new Chinese consumer", how the food demand in China is changing and how to address new needs by establishing the right synergies between public and private stakeholders
- This could be achieved by systematic and long-term household data collection projects