DRIVERS FOR IMPLEMENTATION OF TRACEABILITY IN THE FOOD SECTOR

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Nofima - Who are we?

Petter Olsen
Senior Scientist
Petter Olsen, Senior Scientist at Nofima, is an expert in food traceability, and related electronic data interchange, method development and standardization.

Kine Mari Karlsen
Scientist
Kine Mari Karlsen, Scientist at Nofima, implements traceability in the fisheries sector.

Kathryn Anne-Marie Donnelly
Scientist
Kathryn Anne-Marie Donnelly, Scientist at Nofima, works on challenges of food traceability, standardization and cost/benefit analysis.
Introduction

The main motivating factors for traceability are food safety, certification, compliance management, production control rationalisation, supply chain communication and competitive advantage.

Experience from traceability implementation projects such as TRACE provides evidence and insights about these factors and can give pointers to the way forwards for successful traceability implementation.
Motivating factors for traceability

Modified from Petter Olsen's 'circle diagram'
Legislation

Europe: Common Food Law 178/2002 - Applies to feed and all foodstuffs

Each Food Business Operator must be able identify all who delivered food, feed or ingredients that were used in production.

A mechanism must exist to make this information available to the authorities on request.

Each Food Business Operator must be able to identify all those they deliver food, feed or ingredients to. A mechanism must exist to make this information available to the authorities on request.

Food or feed items that will or might be sold in the EC should be labeled in accordance with sector specific requirements and the code on the label should facilitate identification and enable (targeted) recall.
Legislation

Europe: Common Food Law 178/2002 - Applies to feed and all foodstuffs

*Important limitation*

Operators do not have to establish a link (internal traceability) between incoming and outgoing products.

There is no requirement for records to be kept identifying how batches are split and combined (transformations)

*The decision on the level of detail of the internal traceability should be left to the business operator, commensurate with the nature and size of the food business.*
Certification

Sustainability
Organic
Food miles
Fair trade

Many of these 'schemes' require some form of documentation of product and process information.
Chain communication

Data lists
Ontologies
Standardisation

These will contribute to improved supply chain management by making it easier and more effective to exchange information electronically along supply chains.

<table>
<thead>
<tr>
<th>Data element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHP01 Honey processor ID</td>
<td>Name and address or GLN of Honey processor that operates processing establishment</td>
</tr>
<tr>
<td>HHP02 Honey processor establishment ID</td>
<td>Name, address and registration number or GLN of processing establishment</td>
</tr>
<tr>
<td>HHP03 GMP certification</td>
<td>Names of quality or food safety GMP schemes by which Honey processor is certified</td>
</tr>
<tr>
<td>HHP04 Laboratory certification</td>
<td>Names of laboratory certification</td>
</tr>
</tbody>
</table>
Chain communication

Before standardisation

COMPANY A  COMPANY B  COMPANY C  COMPANY D

No standardised information exchange
Food safety

Tracability enables companies to carry out precision recalls in the case of food safety incidents.

In studies carried out both in Europe and in the US the traceability of food products was tested by carrying out simulated recalls.

Companies unable to answer questions were often surprised and immediately able to identify the use of traceability systems.
Food safety

Data taken from Donnelly et al (2009) and Levinson (2009)
Competitive advantage

It has been shown that many consumers would like more information about the food they buy.

Traceability can be used to ensure that the consumer can get this information.

The supermarket 'Co-op' wants to improve the information its consumers receive about fresh fish products.

It is thought that consumers will prefer products about which they can have access to product and process information.
Competitive advantage

Therefore the Co-op wanted to gather information from fishing boat through processing to the fresh fish counter at the shop, then make this information available to customers in order to gain a competitive advantage.
Labour/Cost reduction

Experiences from ‘clipfish’ (dried salted cod) study

Company was shown to use internal traceability for many functions

- Controlling quality of raw materials
- Controlling productivity and effectiveness
- Stock control
Thank you for your attention!

References


LEVINSON DR (2009) Traceability in the Food Supply Chain, Department of Health and Human services USA http://oig.hhs.gov