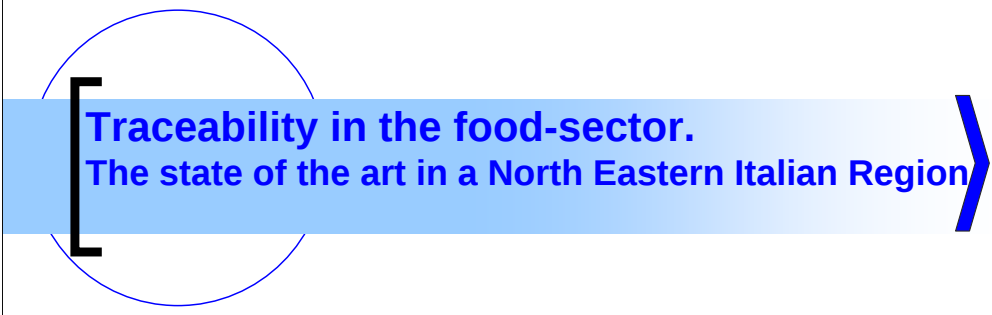




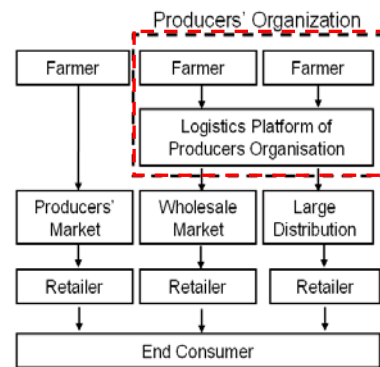
Traceability in the food-sector. The state of the art in a North Eastern Italian Region

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[The Agri supply chain and POs]

- Producers' Organizations (POs) have been recognised by the Ministry of Agriculture and Forestry in accordance with Regulation CE 2200/96
- Upstream: The Producers Organisations have direct contact with the farmers
- Downstream: POs can distribute their products directly to the large distributors, to wholesale markets or producers' markets



The study takes into consideration Producers' Organizations (POs) which have been recognised by the Ministry of Agriculture and Forestry in accordance with Regulation CE2200/96. This regulation recognises POs as an essential instrument for the management of fruit and vegetable production and for dealing with the agro-food market, to the advantage of the producers they represent.

the Producers Organisations have direct contact with the farmers, upstream, while downstream they can distribute their products directly to the large distributors, to wholesale markets or producers' markets.

[What's Traceability?

- Tracking is a technical and organizational innovation, a technique for gathering and managing data to manage the information flow which accompanies the product flow from its point of origin to its point of consumption.
- Traceability means “the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution [Reg. (EC) No 178/2002]

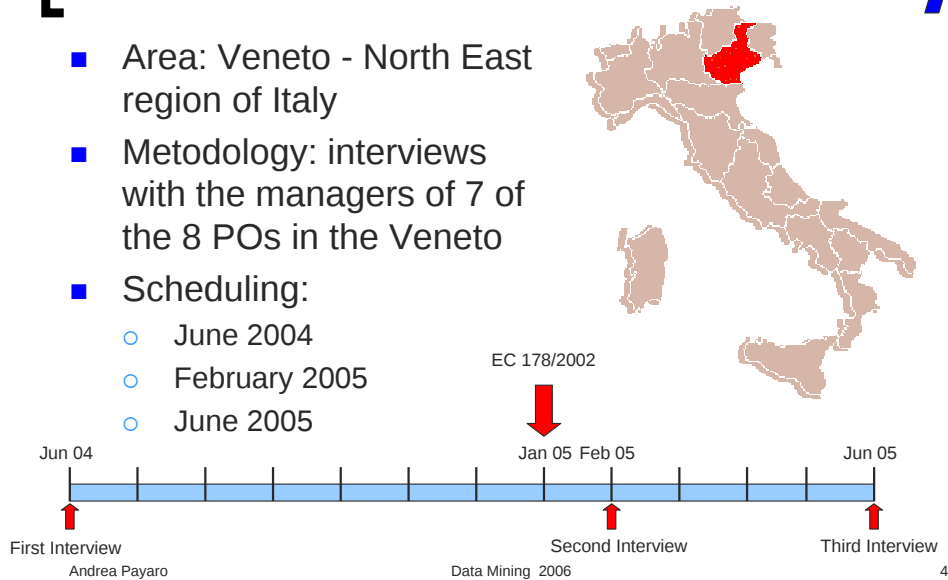


On 1st January 2005, traceability as defined in article 18 of Regulation (EC) No 178/2002 came into force, and its implementation presupposes product tracking.

This means that it is necessary to be able to trace a product from the consumer back to its source, and to do this, a tracking system is necessary.

The research

- Area: Veneto - North East region of Italy
- Metodology: interviews with the managers of 7 of the 8 POs in the Veneto
- Scheduling:
 - June 2004
 - February 2005
 - June 2005



To understand the phenomenon an empirical, qualitative research method was used in the data collection phase, consisting of in-depth interviews with the managers of 7 of the 8 Producers' Organisations in the Veneto

The North East area of Italy is one of the biggest producer of fruit and vegetable

The research was carried out in three separate phases in order to evaluate the application of the 178/2002 Regulation: in June 2004, February 2005 and June 2005. The aim of having the interviews at three different times was to evaluate the attitude of the POs towards the changes they had to apply.

[The POs analysed

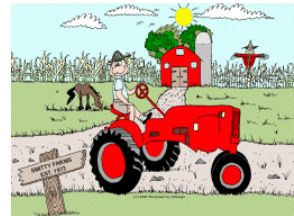


- The POs collect 5976 farmers
- The POs sell over 60% of the production of Veneto
- The Pos are main players in the supply chain in this region
- Production of fruit in Italy 4 914 596 Tons
- Production of fruit in Veneto 422 733 Tons



[Why should POs trace?:]

- to make the production process more transparent for member farms;
- to check management of the quality and efficiency of production processes;
- to add value to the product on the market;



- to guarantee the collection of the data necessary for public bodies (ministry or region);
- to control food safety hazards

From the data gathered it emerged that the main reasons underlying the creation of tracking and traceability systems are the following:

- to make the production process more transparent for member farms;
- to check management of the quality and efficiency of production processes;
- to add value to the product on the market;
- to guarantee the collection of the data necessary for public bodies (ministry or region);
- to control food safety hazards;

[Data gathered]

- *Data gathered in June 2004.*
 - No POs had implemented a traceability system.
- *Data gathered in February 2005.*
 - Two POs have improved their pre-existing information systems in order to have traceability within the company.
- *Data gathered in June 2005.*
 - 5 POs out of 7 have used internal resources to develop systems based on the printing of bar codes and the mapping of storage spaces

Data gathered in June 2004. No PO had implemented a traceability system. The change is seen as a priority but there are not as yet any pilot projects. They say they are evaluating hypotheses as to how they can make the improvements.

Data gathered in February 2005. Two POs out of 7 have improved their pre-existing information systems in order to have traceability within the company. There is no real supply chain integration and relations with customers and suppliers have not changed.

Data gathered in June 2005. 5 POs out of 7 have used internal resources to develop systems based on the printing of bar codes and the mapping of storage spaces. There can be said to be traceability within the company but relations with customers and suppliers have not changed.

[Results]

- POs in the Veneto region have not set up a real traceability system
- There are three critical issues which do not permit a standardization of the process:
 1. product
 2. economic-organization
 3. technology

An analysis of the interviews carried out reveals that the POs in the Veneto region have not set up a real traceability system.

[Product issue

- It is not easy to code products;
- there are parameters such as weight, colour, ripeness and calibre.
- it is possible that goods from different producers are mixed in the preparation and calibration phases.



The type of product influences the way it is grown, processed and stored with repercussions on the possibility of keeping a uniform track of information. It is not easy to code products; among environment-related factors fruit and vegetable type is one of the classification parameters.

POs need an information system which is capable of keeping track of everything that happens during the various production phases until they are purchased by the consumer.

In addition, there are also other parameters such as weight, colour, ripeness and calibre. As well as a coding system which correctly represents the product, it is necessary to record all the operations the product undergoes.

Producers deliver the picked fruit to the POs who take care of the preparation and packaging. This means that it is possible that goods from different producers are mixed in the preparation and calibration phases. The mixing occurs when producers deliver quantities that are too small to fill a loading unit, such as a pallet.

[Organisational issue]

- Agriculture in the Veneto is very highly fragmented with a myriad of small farmers.
- The field log book is in paper format.
- The move to digital recording of information cannot take place rapidly because of the lack of IT skills among producers.



agriculture in the Veneto is very highly fragmented with a myriad of small farmers.

The field log book is still the main instrument used to record what is done to the produce. The organizational change requires producers to use information and communication technology to record information about the field log book. However other information about processes after growing, such as harvesting and delivery, are still recorded on paper. The move to digital recording of information cannot take place rapidly because of the lack of IT skills among producers.

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[Technological Issue



- No system based on information and communication technology has been set up in the chain to gather information which defines the characteristics of the product batch.
- The following are still lacking:
 - uniform names for fruit and vegetable products
 - ratification of the terminology and definitions of products and their characteristics;
 - standardization of product identification codes.



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While subjects upstream from the POs lack information systems, our survey revealed that some POs are equipped with personalised software solutions for recording data of what goes in and out of the warehouse. The personalization of systems creates problems of inter-communicability and sharing of information.

This problem regards not only the Veneto region, but the whole of Italy and in practice means the following are still lacking:

- uniform names for fruit and vegetable products
- ratification of the terminology and definitions of products and their characteristics;
- standardization of product identification codes.

Conclusions

- The fruit and vegetable sector in the Veneto is not homogeneous.
- There is the difficulty in extending a corporate standpoint to farmer members which would facilitate the implementation of vertical integration.
- The integration of all members of supply chain is difficult to realize.

the need to make control procedures and internal management of production systems more efficient in the phases of transformation/processing to avoid losing information and traces of the product.

lack of computer skills in production areas, that is information regarding “the field” and the consequent decision not to adopt technology for automatic identification: too expensive from the point of view of staff training, too much of a burden from an organizational point of view;

difficulty in extending a corporate standpoint to farmer members which would facilitate the implementation of vertical integration systems as well as tracking/traceability systems.

The mere desire of the organization to control its own processes would lay the foundations for traceability; but this is not to say that it would be possible to construct, on this basis, a supply chain traceability system which involved all members, from the producer to the end consumer.



- ***Thanks for your attention***

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