## Food traceability

Standards and guidelines

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### Plan

- **♦** 1. Fundamentals
- **♦** 2. Regulations
- **♦** 3. How to introduce a food traceability
- ♦ 4. Costs and effects consideration
- 5. Illustration:
  - ♦ Components of a livestock traceability system
  - Film

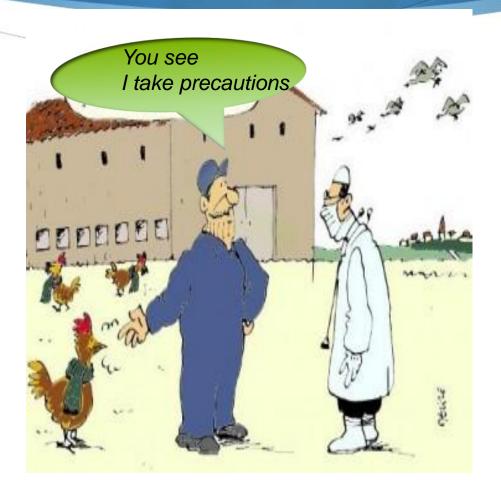
## 1. Fundamentals

1.1 Introduction: Risks

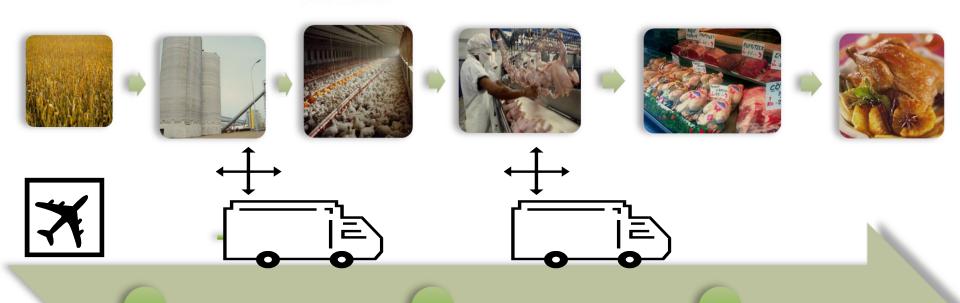
1.2 : Risk management

1.3 Définition

## 1.1 Introduction: Risks



## From farm to table...





## Risks at all stages...

#### Chemical

• Contaminant s residues from veterinary medicine, additives, pesticide residues...

#### Physical

 Radioactivity, extraneous, matter

#### Biological

pathogenic germs , parasite, virus,prions

#### **Economical**

• Fraudulent trading

## 1.2: Risk management

- GMP
- HACCP
- Autocontrôles
- Sanitary measures associated with relevant laws and regulations
- Internal audit, external audit, authoritie's control, quality certification



But...never

risk = nul



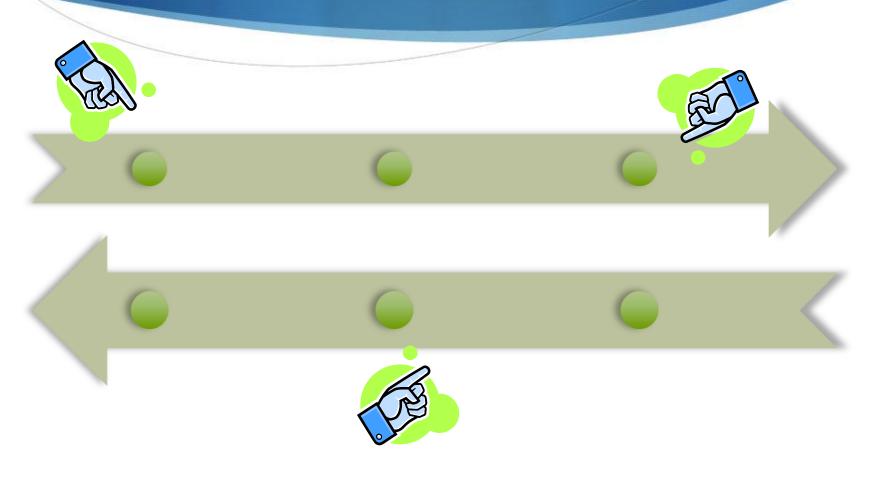
The importance of traceability

# 1.3. Définition: Traceability =

▲ Ability to trace the background history, the use or the localisation of an item or an activity by means of a recorded identification.

Traceability enables to **guarantee** the origin or the components of foodstuffs

# Ability to follow the movement of food through every stage (tracing both directions)



# ....by means of recorded identification

Attaching ID

Checking and transmitting

Recording

## Contribution to food safety: Traceability is meant to ensure:

- Quick withdrawal and recall of unsafe food/feed from the market
- Appropriate information to consumers and food business operators.
- Risk assessment can be performed by control authorities

## Rationale

#### Risk management tool

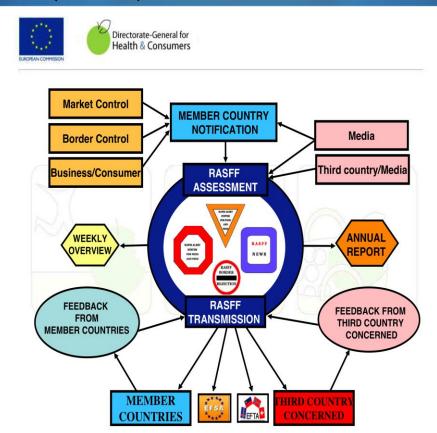
 Used in order to assist in containing a food safety problem (contribution to quality improvement)

#### Marketing tool

- Means for consumers trust
- Origin = « Label »

## Quick withdrawal from the market

Ex: The Rapid Alert System for Food and Feed (RASFF)



#### Consumers Trust

#### European Cmmission 29/05/2009



#### « Food labels revisited

One day not so far in the future, Europeans may be able to buy a loaf of bread knowing where the flour came from. The EU is considering expanding the use of food labels to show where the product was farmed. European farmers, producers and consumers voiced strong support for greater use of « place-of-farming »labels »

## 2. Regulations

2.1 Laws and Regulations2.2 Principles2.3 Requirements2.4 Implementation

## 2.1 Laws and Regulations

#### **♦** The General Food Law

REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 28 January 2002 - Article 18

#### CODEX ALIMENTARIUS

PRINCIPLES FOR TRACEABILITY/ PRODUCT TRACING AS A TOOL WITHIN A FOOD INSPECTION AND CERTIFICATION SYSTEM CAC/GL 60-2006

2.2 Principles (CE 178/2002, Art.18)

5 points

**Products** Identification Labelling Spécific sectors Operators - Information

1

The traceability of **food**, **feed**, **food-producing animals**, **and any** other **substance** intended to be, or expected to be, **incorporated** into a food or feed shall be established **at all stages** of production, processing and distribution.

Food and feed business **operators shall be able to identify** any person **from whom they have been supplied** with a food, a feed, a food-producing animal, or any substance intended to be, or expected to be, incorporated into a food or feed.

To this end, such operators shall have in place **systems and procedures** which allow for this **information** to be made **available to** the competent **authorities on demand**.



Food and feed business **operators** shall have in place systems and procedures **to identify** the other businesses **to which their products have been supplied**.

This information shall be made available to the competent authorities on demand.

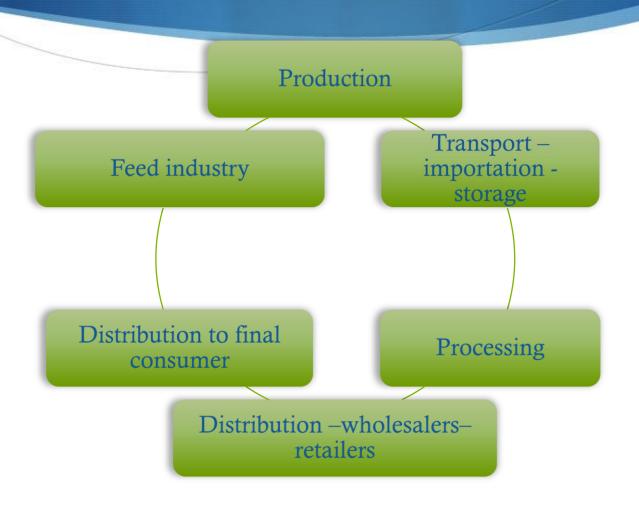


Food or feed which is placed on the market or is likely to be placed on the market shall be **adequately labelled** or identified to facilitate its traceability, through relevant documentation or information in accordance with the relevant requirements of more specific provisions.



Provisions for the purpose of applying the requirements of this Article in respect of **specific sectors may be adopted** 

# Stages in entire food chain covered by the traceability regulation



## Rationale

The identification of the origin of feed and food is of prime importance for the protection of consumers.

- Objectives:
  - Secure food safety
  - Fair trading
  - Reliable information

#### ♦ Traceability enables

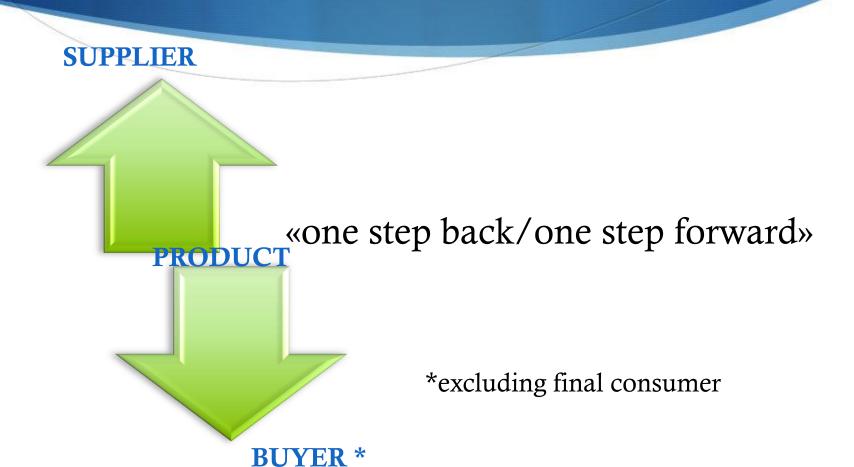
- ◆ To ensure that targeted and accurate withdrawals or recalls can be undertaken.
- To provide appropriate information to consumers and food business operators
- To facilitate risk assessment performed by control authorities
- ♦ To avoid unnecessary wider disruption of trade

## 2.3 Requirements

### CE 178/2002, Art.18

- creates a new general obligation for all food business operators: to identify the suppliers and direct recipients of their food/feed
- is worded in terms of its goal and intended result, rather than in terms of prescribing how that result is to be achieved.

## identify suppliers and buyers



## stressed on goal and intended result



greater flexibility in the implementation of the requirement



likely to reduce compliance costs



requires an active role of both food businesses and the control authorities

# Scope of the traceability requirement 1. Covered products

« any substance ....»

veterinary medicinal products, plant protection products, fertilisers



food packaging materials

specific regulations: (CE) n° 852/2004; n° 1935/2004

«incorporated»



all types of food and feed ingredients, (included grain when incorporated in a feed or food)

## Scope of the traceability requirement 2. Covered operators

- ◆ food business operators at all stages of the food chain, from primary production (food producing animals, harvests), food/feed processing to distribution.
   (including charities organisations but taking into consideration particular situation of donation activities)
- Haulage contractor and food storage enterprises

# Scope of the traceability requirement 3. Applicability to third country exporters

- from the importer up to the retail level (But it requires that food/feed imported into the Community complies with the relevant requirements of EU food law.)
- Exporters in trading partner countries are not legally required to fulfil the traceability requirement imposed within the EU (except in circumstances where there are special bilateral agreements for certain sensitive sectors or where there as specific Community legal requirements, for example in the veterinary sector).
- some EU food business operators to request trading partners to meet the traceability requirements and even beyond the "one step back-one step forward" principle (= food business's contractual arrangements and not of requirements established by the Regulation)

## 2.4 Implementation

## Identification of

suppliers

customers

individual



Legal

enterprise, restaurant, retailer



Enterprise ≠ truck driver!

#### Internal traceability

- food business operators should be encouraged to develop systems of internal traceability designed in relation to the nature of their activities
- contributing to more targeted and accurate withdrawals
- ♦ The decision on the level of detail of the internal traceability should be left upon the business operator ex: any requirement for records to be kept identifying how batches are split and combined within a business to create particular products or new batches.

## Traceability systems laid down by specific legislations

▶ 12 ny other system of identification of products existing within the framework of specific provisions (fair trade purposes) may be used to satisfy the requirement established by Article 18, insofar as it allows the identification of the suppliers and of the direct recipients of the products at all stages of production, processing and distribution.

#### Types of information to be kept

#### 2 categories according to its level of priority:

1. Information which shall be made available to

the competent Authorities in all cases

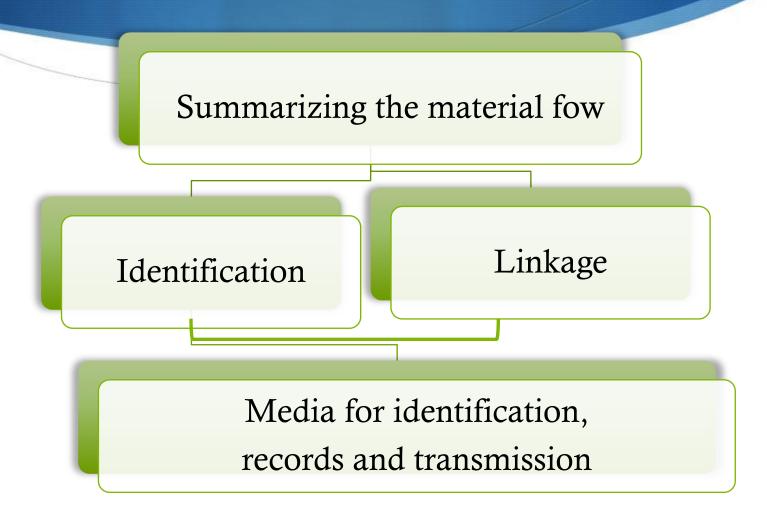
- o Name, address of supplier, nature of products which were supplied from him.
   o Name, address of customer, nature of products that were delivered to that customer.
   o Date of transaction / delivery. (! Invoices ≠ delivery notes)
- 2. Additional information which is highly recommended to be kept
- o Volume or quantity
   o Batch number, if any.
  - o More detailed description of the product (pre-packed or bulk product, variety of fruit/vegetable, raw or processed product).

### Time of records keeping

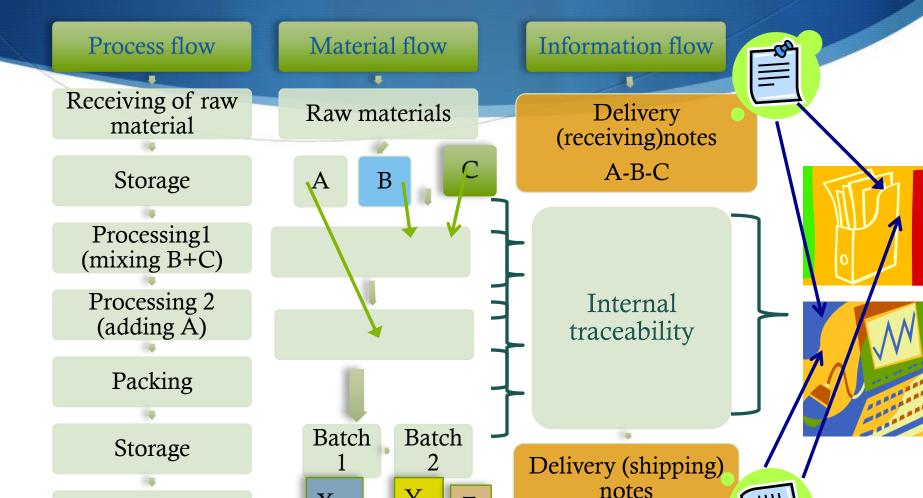
- 5 year period (commercial documents are usually registered for a period of 5 years for taxation controls)
- ◆ → For products without a specified shelf life (ex: wine)
- For products with a shelf life above 5 years
  - period of the shelf-life plus 6 months; .
- For highly perishable products, which have a "use by" date less than 3 months or without a specified date (ex: fruits vegetables)
  - →6 months after date of manufacturing or delivery.

# 3. How to introduce a food traceability

### Basis for securing traceability: « identification and linkage »



#### Summarizing the material flow



X-Y-Z

X

Shipping

### Identification 1. Définition of « traceable unit »



Individual

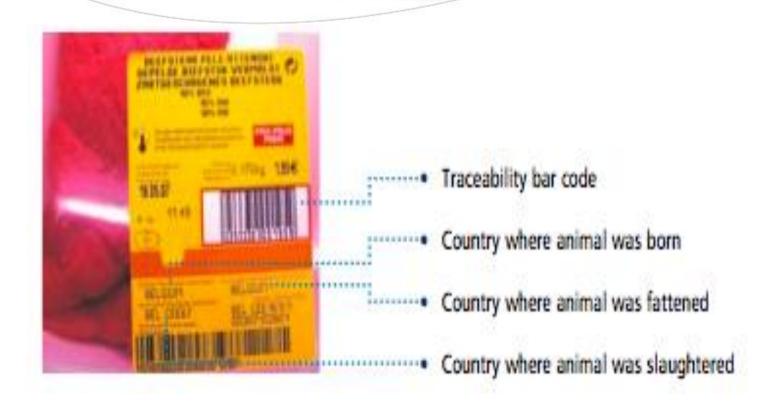


Lot

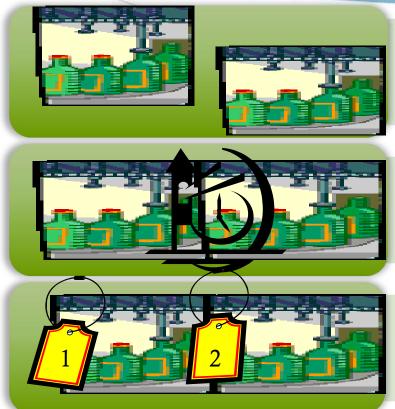


Individual Product

### Identification 2. Précision of ID



### Identification 3. Segregation management



Using different lines

 Separated by using the line at different times

 Separated by using partitioning sticks

## Ensuring « One step back- one step forward »











### Méthod of attaching ID



Sealing



Label



Printing



Electronic tag

## Media for information recording and transmitting





Bundle of documents

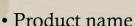
Database

#### Recording

- Establishing a procedure : documents and / or files previously established
- **♦** Choice of information to be collected
  - Indispensable for the traceability
  - Additional (eg:accounting, management quality)

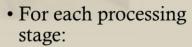
#### Information à enregistrer



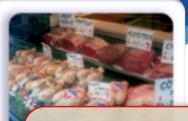


- · ID
- Origin /supplier name
- Receiving date
- Quantity / Weight
- Operator name





- Product ID
- Date and hour
- Quantity /weight
- Identification of the line/ the operator
- semi-finished product -ID



- · Product name
- · ID
- Destination/Buyer name
- Shipping / Delivery date
- Quantity /weight
- Operator name

Indispensable for traceability

Additional

Quality management (ex:T°) or commercial flow (ex: price – sales tax)

### Verifying the traceability system

- Monitoring : coherence of informations? eg: weight –date
- **♦** External externe

## 4. Costs and effects consideration

#### Costs-Effects



Reduction of loss through faster detection of problem sources, removal and recall

Accountability of staff

Securing customers'trust

Improved handling against claims and inquiries

Increased labor cost and expenses of supplies

Cost of identification and recording media

Education and training of staff

**Effects** 

5. Illustration:
Components of a livestock traceability system
Film