

PROJECT TEMPLATE DESIGN ON GLOBAL TRACEABILITY REGARDING THE REQUIREMENTS FOR OBTAINING ORGANIC HONEY

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Abstract

Considering that the European Union (EU) insists on the introduction of a monitoring system of several substances and residues present in animal products, I considered useful to develop a project regarding this topic – model on global traceability and the requirements regarding the production of an organic food product. Model testing and the adaptation to satisfy the HACCP requirements demonstrated its compatibility evaluated in terms of activities and concepts.

Keywords: *honey, food safety, quality, traceability.*

Introduction

At (EU) level, attention is drawn to the introduction of a monitoring system for certain substances and residues present in animal products, such as honey.

This system focuses on strengthening the monitoring and detection of certain non authorised substances and residues, present in animal products that can be toxic to human health (Anonymous 1991 and 2000).

The monitored substances and the groups of residues are listed in the Annex I to the Directive 96/23 EC, where regarding honey, some of the substances and groups of residues are mentioned as follows:

- 1) Veterinary use medicines:
 - a. Antibacterial substances(antibiotics), including sulphonamides, quinolones-group B(1).
 - b. Carbonates – group B(2)(c)
- 2) Other substances or contaminants from the environments
 - a. Organo-chlorinated compounds-group B(3)(a)

- b. Organo-phosphates compounds - group B(3)(b)
- c. Chemical elements (heavy metals) - group B(3)(c)

The essential element of the monitoring system is represented by so called monitoring levels, which establish the basis in order for the national authorities in charge to proceed to the required inspections. Third world countries are required to present to the (EU) relevant projects should they intend their products to be imported into the (EU). These projects have to satisfy the warranties offered by those particular countries regarding the monitoring of the groups of residues and toxic substances (Jouve 1993, Bratu 2000, Bratu *et al.* 2001).

If the committee approves the project presented by the country in cause, that country will be included in the list of the third world countries that are authorised to export animal products specified by this directive into any (EU) member country (Anonymous 1997, Bratu 2001).

Where the third world countries do not succeed to fulfil their obligations and warranties specified in the project, that country's authorisation may be suspended and as a consequence import from this country will be banned. This is the reason why I consider that this project is helpful to bee keepers from Romania and in particular to the ones willing to export honey into the (EU). An example that describes various requirements in order to produce organic honey to be exported in the (EU) is presented in table 1 (Project - Model).

Establishment of Global Traceability – product trace

The general committee of the European Union for the regulation and legislation of food products defines traceability as being the “capacity of detecting and monitoring of nutrition, way of nutrition, food production of animal origin/nature, through all stages of production, processing and distribution”.

Traceability systems rely on recording information, ways of recording it at all intermediate stages that process and combine ingredients into new products.

Table 1. Stages and requirements to be satisfied in order to obtain organic honey

Bee Keeper:	Address:
Present placement of the hives:	
Present pollen sources: linden, acacia tree, fruit trees, hay field, etc.	
Sources of pollution: absence of sources of pollution over a 3 km radius.	
Bee families to be grazed in pollution free areas.	
Bee families registered and monitored on isolated sites	
REPRODUCTION	
•	Reproduction through division (Is formed from a single family) Artificial swarming; Natural swarming
MONITORING OF WORKER BEES	
•	Expansion Unifying of young families.
REPLACEMENT OF BEE QUEENS	
•	Through young families formation; Artificial swarming From the initial family.
•	Through purchasing from other bee keepers; From larger bee keepers
•	From own hives or only from the authorised organic bee keepers
TYPES OF FOOD DURING WINTER TIME - QUANTITY / HIVE	
•	Honey – own production 15-20 kg/hive, only using organic honey Sugar
BEE HEALTH	
•	Poor; Average Excellent
HYGIENIC MEASURES	
•	Regular disinfection Irregular disinfection; No disinfection – only disposal of old honey combs
PREVENTIVE MEASURES –DISINFECTION	
•	Flame; Acetic acid Sodium carbonate; Sodium hydroxide; Formic acid
DESEASE TREATMENT METHODS	
•	Veterinary directions of treatment; Treatment of wax moths Compulsory disposal of contagious families; Natural ways, storage at low temperature
WAYS OF PROCESSING	
•	Plastic; Painted; Water solvable painted Wood; Not painted for at least for 3-4 years, protected using organic oil
HARVESTING TOOLS	
•	Centrifuge Bee keeper’s brush; Press
CONTAINERS FOR STORAGE	
•	Stainless steel; Glass; Ceramics Aluminium
Usage of Chemical Substances to Keep the Bees Away Without Harming Them	
•	Yes; Which ones No

(• refers to the requirements that are approved by the EU legislation in the traceability of honey to be accepted for import into the (EU) as organic).

The amount of information contained in a traceability system varies, and is dependant on the nature of the product, processing technology, legal regulations at the time of production. Complex mechanisms are necessary in order to simplify the identification and gathering of information in order to keep it up to date and to be integrated in the specific stages of the food production chain.

In some instances, analytical tests may support and verify the traceability systems.

Main characteristics of traceability systems are:

- identification of product lots;
- information related to when and where products are obtained and processed;
- a system that connects data.

Diversification of the processing operations of food implies that the way the recordings are made at any stage is unique. There are several requirements in the legislation of the EU regarding traceability; for example the selling of bovines in the EU may be traced back to the country of origin. The implications of the implementation and the effect of this legislation proposed in all food chains stages constituted the motivation for the elaboration of a project to evaluate the priorities and the objectives regarding the traceability in food chain production.

Traceability systems play an important role regarding food safety and nutrition as well as consumers safety (White 1973).

The schematic below describes the informational chain in a process traceability system was applied to from the raw material reception to the finite product. Global traceability diagram is based on various stages described in figure 1 above (Route for obtaining organic honey).

Conclusions

Traceability systems with detailed information about a product, its processing history have to be promoted and introduced in all sectors of food processing industry. In the future the recorded data related to the food processing chain may provide a competitive advantage as long as it accompanies the final product ready for sale.

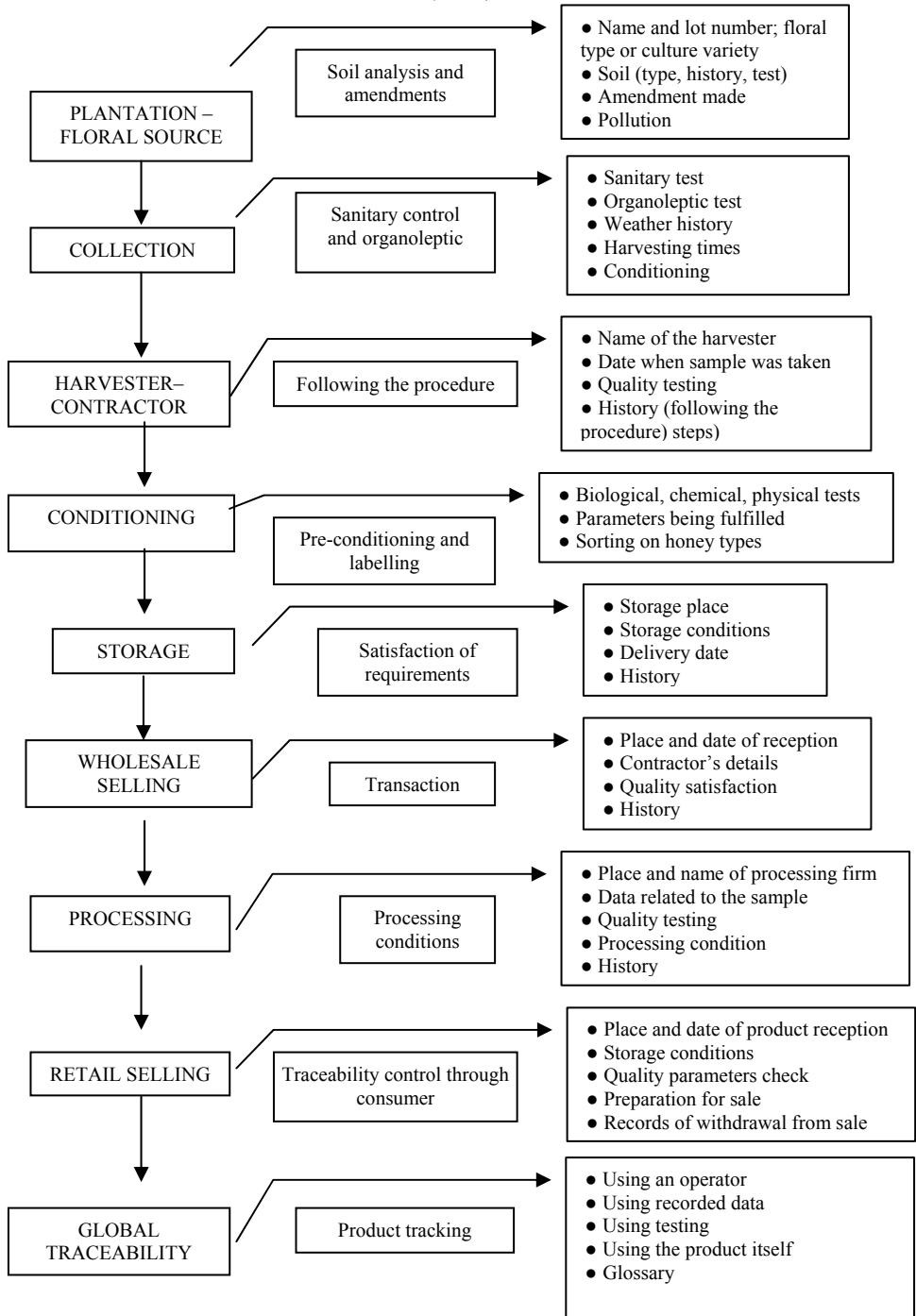


Fig. 1. Route for obtaining organic honey

Project Template Design on Global Traceability Regarding the Requirements for Obtaining Organic Honey

Determination of traceability in food chain presents advantages related to quality, insuring the efficiency of the processing procedures. Traceability applied in food manufacturing leads to a continuous improvement of the quality of the final food product. This demonstrates why an appropriate attention in accordance with the present legislation has to be given and to be considered an essential subsystem in food quality management.

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