

## **HACCP and Traceability: An essential duo in the agri-food industry**

*For the past several years, regulatory requirements have been increasing on provincial, national and international levels. Multinational agreements added their share of compliance requirements.*

*And more recently, new national and international guidelines must now be implemented at the request of customers and consumers. Examples include “healthy” and “sustainable” products and food, prepared meals, the proximity of materials (the prioritization of locally sourced materials) and whether finished products do or do not contain a particular ingredient or food additive. In addition to being innovative, we must meet food safety and quality requirements such as those of the HACCP (Hazard Analysis and Critical Control Points) and traceability.*

There is a difference between the HACCP and traceability. Here are some definitions to ensure these terms are well understood.

### **Quality**

Companies must have systems and/or processes for monitoring quality assurance and automated data collection as well as obtaining QS (Quality System) certification, to include QA (Quality Assurance), HACCP, BPI Code (Bar coding) and ISO (International Organization for Standardization), as well as traceability. They are expected to meet the implicit needs of customers and consumers worldwide.

### **HACCP**

The HACCP system, based in Canada on the CFIA's FSEP (Canadian Food Inspection Agency - Food Safety Enhancement Program), is associated with the quality control procedures of a quality improvement program. It is a method used to identify and assess the risks associated with the different stages of production of a food (item), identify critical points and define the means required for their management. It spans the entire production process from supply to quality control and the recall of finished products. Recognized worldwide (with (national) variations, it is based on a scientific approach to ensure food safety and the safety of foodstuffs intended for the agri-food industry. It is put in place for the preparation of foodstuffs and their inputs to ensure the safety of the process. The system grants access to various markets, whether Canadian or export (international), to meet regulatory requirements in effect in the importing countries. It can also benefit to be used for investigative purposes. It is truly a component of quality.

### **Food Regulations**

The Food and Drugs Act (referred as 'the Act') is the main piece of legislation governing the safety and nutritional quality of food sold in Canada. The Act and its regulations govern several elements.

The purpose of the Act and its ensuing regulations is to protect the public against health risks and fraud related to the sale of food and beverages, drugs, natural health products, medical devices and cosmetics.

Health Canada, the Canadian Food Inspection Agency and Agriculture as well as Agri-Food Canada play complementary roles in the development, implementation and interpretation of policies and guidelines in accordance with the Act and its ensuing regulations.

For more information: <http://www.agr.gc.ca/eng/industry-markets-and-trade/food-regulations/?id=1361289832568>

The HACCP system and its prerequisite programs are supported and controlled:

- In Canada, by Health Canada, the CFIA and Agriculture and Agri-Food Canada, as well as sometimes even by provincial governments and/or third parties;
- In the United States, by the FDA (Food and Drug Administration), the USDA (United States Department of Agriculture), the BTA (Bio-Terrorism Act) and COOL (Country of Origin Labeling);
- In Europe, by the BRC (British Retail Consortium), the IFS, ISO 22000, Codex Alimentarius and CE 178/2002 among others.

In Canada, the three departments communicate with one another regularly. They want to ensure that policies and regulations are developed in such a way as to promote investments, innovation and competitiveness in the food industry, while continuing to prioritize health promotion and protection as well as public safety. All of these organizations exist to ensure product safety and consumer protection.

### **Lot**

A number of units with the same reference manufactured under identical conditions. These units may be consecutively or simultaneously produced using a controlled process or procedure.

### **Recall**

Action organized by a company for the return of a product to its place of production when samples of the product are in the hands of consumers. This may be done for safety, health or strategic reasons.

### **Traceability**

According to Agriculture and Agri-Food Canada, traceability is the ability to track a commodity or group of commodities (animals, plants, foodstuffs or ingredients) from one point to another in the supply chain. Identification, tattooing, labeling and recordkeeping are traceability techniques used by industry and government for many years. A traceability system depends on three main elements: the identification of animals/products; the identification of facilities; and the movement of animals/products. For more information: <http://www.agr.gc.ca/eng/industry-markets-and-trade/traceability/?id=1382971713721>

The ISO 9000-2000 standard states that traceability is “the ability to trace the history, implementation or location of what is to be examined”. It is the origin and identification of materials, process history, product distribution and calibration. Traceability is not quality control!

Traceability will help a company optimize its production, logistics, quality, information technology processes and develop strategies. Traceability will also help manage the flow of information and effectively fight against counterfeiting as well as other instances of malfeasance to which a company could fall victim.

**Upstream traceability:** “tracing”, this first level of tracing or traceability deals with that which enters a plant. It helps track, at every step, the history and origin of a lot of finished products by supplier and mode of transportation, as well as the processing, production and origin of raw materials.

**Downstream traceability:** “tracking”, this second level of tracing or traceability deals with that which leaves a company. It helps track, at every step, the complete industrial or commercial use (manufacturing, packaging, labeling, transportation, storage, distribution, linear retail platform) of a lot of finished products. However, some experts believe that traceability does not systematically reach the displays of retail stores and that, in the case of some major distributors, it stops in the warehouse.

**Internal traceability:** traceability implemented within a company throughout the manufacturing process, from the receipt of raw materials to the shipment of processed, manufactured or finished products.

**Full traceability:** the sharing of information from the supply and logistics chains leading to a reduction in the scale of recalls.

Upstream and downstream traceability must be even more robust when it comes to imports and exports. These areas call for accurate monitoring and documentation of “purchase” orders and “sale” orders until the receipt of full payment. Customs authorities worldwide now act as auditors.

With globalization comes a slew of economic and political arrangements. Trade and free trade agreements are a reality. These agreements often lead to the creation of laws and regulations that affect the industries and companies to which they belong, even when these are consulted. Whether this represents an opportunity or a threat, we must focus on the end goal: the opening of markets. For some producers and manufacturers, the concessions made by these non-tariff barriers become very real challenges.

In addition, the implementation of import and export controls often requires traceability (e.g., whether duties need to be paid on timber exports, in-quota imports, imports of iron or iron-based products in the United States, etc.). Obviously, traceability extends beyond the usual context of food and affects all industries, including pharmaceuticals, cosmetics, medical devices, construction, aerospace, automotive, textile and clothing. Customs issues need also be considered and include customs compliance, border security (C-TPAT, PIP, SAFE and others), the NAFTA, soon the Canada-EU CETA and other agreements, etc.

On the other hand, companies who wish to reap the benefits of agreements such as the NAFTA, the Canada-EU CETA and others must ensure their compliance because these agreements speak of

“rules of origin – origin”. Documentary traceability, often the most exhaustive form of traceability, is based on the “burden of proof”. A few years ago in the United States, the USDA implemented a procedure for the mandatory inspection of foodstuffs entering from the Canadian border. Some reports indicated that too many products labeled “product of Canada” were entering the United States. Importers had to provide documentary and other evidence to demonstrate that the products were in fact “products of Canada”.

The need for traceability can also arise from a specific customer request: the selection of an inputs or raw materials supplier, for example, or that of a particular manufacturing process, among other things. We must be able to provide the customer with documentation and proof on request.

### **Traceability Management**

Companies using the HACCP system already have an HACCP Plan complete with documentation, procedures and processes. A manager or coordinator is already in place.

Traceability must be integrated within a company’s processes. Of course, traceability will require dedicated procedures. It is clear that this process is constantly improving and evolving with the integration of new databases in compliance with current and future requirements and regulations. Traceability is everyone’s responsibility. It allows for a unique identification of products, stakeholders (suppliers, subcontractors, etc.) and locations. It connects information about “products, materials received - products delivered”. It should enable the downstream and upstream sharing of information. The challenges are constant.

With ISO 22000, which provides a reference for aligning the various programs, it will be possible to secure European and North American traceability under a single framework of quality. GFSI (Global Food Safety Initiative) is pursuing a similar goal. With the combination of ISO standards, traceability, HACCP tools and the Codex Alimentarius, we can identify manufacturing processes and intended users, establish a flow chart and document critical control points (CCPs) while bearing in mind the chemical, biological and physical (BCP) risks. If necessary, companies can make corrections and provide proof because of traceability.

### **Success factors for this duo**

The system is only reliable when:

- Management is involved and everyone participates: staff (managers, employees, even shareholders) is constantly trained, and informed about relevant procedures and processes in all departments either directly or indirectly involved;
- Staff is qualified and reliable, especially at control points, check points and management points;
- Training and information regarding the company's requirements are communicated externally to suppliers, subcontractors and even the CFIA and other organizations;
- Collaboration and partnership between the company and the CFIA or other organizations;
- Clarity and uniformity regarding the requirements, objects of verification and checklists set by the CFIA or other organizations and the diligence of all parties;
- Tools and technologies are controlled and understood by the company and its staff. In the era of information technology, accuracy and efficiency are key!
- An incident register is updated by every department at every shift;
- Daily validations and updates;
- THOROUGHNESS, CONSISTENCY and INSIGHT are maintained day after day, not only in the application of procedures and processes, but also in the documentation of information and recordkeeping in order to achieve results:
  - customers and consumers buy;
  - recalls decrease;
  - deliveries are carried out without incident.

### **The challenge factors of our duo**

Challenges are due to a number of factors:

- Human factors: erroneous readings, bad system entries, fatigue, stress, turnover, unqualified staff at control points, etc.;
- The underestimation of costs or time required by staff for the implementation and management of the HACCP Plan and traceability;
- Bad information or coding from the suppliers;
- The information provided by the company to subcontractors is erroneous;
- The delivery period is too short or poorly planned – Know how to say “no”!
- The tools or technologies used are defective, obsolete or inadequate;
- Trying to do too much with too little;
- A lack of thoroughness, consistency and insight.

- Regular internal audits are performed and are supported by external audits. Where necessary, corrective action is promptly taken and verified (as per the establish Corrective Measures Process);
- Everything is documented in simple terms with clarity and precision: meetings, telephone calls, emails, etc.

### **The advantages:**

- Helps the company distinguish itself in all markets;
- Increases labeling quality: identification of the lot number and better determination of nutritional value;
- Ensures improved origin marking;
- Maintain continuing import and export privileges;
- Helps keep customers whose suppliers must meet HACCP requirements;
- Minimizes product recalls, thus reducing direct and indirect costs associated with recalls;
- Promotes optimal management of suppliers, goods in process and inventory;
- Contributes to the profitability of the company and helps maintain its value;
- Supports sales growth and increases the value of the company.

### **The consequences:**

- Corrective Action Requests (CAR's) from the CFIA;
- CBSA penalties or loss of import or export privileges;
- Denial of release for export sales (CFIA, CBSA, USDA, etc.);
- Delay in production, or worse, a seizure;
- A delay in or denial of release approvals;
- Dissatisfied customers when the company fails to deliver as promised;
- Increased costs and, as a result, decreased profitability;
- A decrease in the value of the company.

### ***The Profitability of Traceability***

The primary objective is to recognize the added value of traceability. We need to come to see its implementation, and the related costs, as an investment. In this case, we must invest within our means, going step by step while keeping in mind materials, equipment, internal staff, external consulting services, training, communications, etc.

When combined with the HACCP, traceability will not only help a company comply with current regulations and position its brand; it will also differentiate its products, improve its recall procedure, streamline its processes and meet the demands of its customers.

It will help a company establish and maintain its competitiveness on the national and international market, keep and even increase its value, not always in the short term, but surely in the long term as well.

Finally, it will help identify and manage potential risks and find solutions, innovate to maintain a competitive advantage, satisfy customers throughout North America and worldwide and project an image of excellence.

**By: Thérèse Vanasse**

ADMINISTRATOR AND MANAGEMENT CONSULTANT

© October 3, 2014, Vanasse & Associés Consultants inc.

### **Appendix:**

Scan the QR codes to access web pages:

#### ***Food regulations***

<http://www.agr.gc.ca/eng/industry-markets-and-trade/food-regulations/?id=1361289832568>



#### ***Traceability***

<http://www.agr.gc.ca/fra/industrie-marches-et-commerce/tracabilite/?id=1382971713721>



### **For more information, visit our website:**

<http://www.vanasse-associes.com/our-services-and-turnkey-solutions/traceability/>



***www.vanasse-associes.com***

**info@vanasse-associes.com - Telephone : 514-955-4701**