

Traceability

is a feature of product quality

Nowadays, the food industry is required to provide more and more information on the origin, ingredients, and preparation methods of their products. A bread package bought off a store shelf can be traced from the factory back to primary production if necessary.



According to the EU food regulations, all players in the food and fodder industries have to be able to trace their own product one step back and one step forward in the production chain. As far as bakeries are concerned, this means that the producer has to be able to find out where the ingredients used in the products were sourced and where the finished products were sold. There must be the possibility to recall substandard products from the stores if required.

The EU does not require foods to have “internal traceability,” i.e. information on which batch of raw material was used for the preparation of individual products. However, in product recall situations, using this kind of information can limit the quantity of food products that has to be discarded, which cuts the costs incurred by the recall.

According to Pekka Ihantola, the development manager of Fazer Bakeries Finland, part of the international Fazer Group, traceability is above all a question of quality.

“The moment a raw material arrives at our warehouse, it is given a supplier and batch ID which is kept in the system throughout the manufacturing process.”

When the product has been baked and packed, it is given a best before date. Using this and the identification data stored in the system memory allows any necessary product recall to be carried out with detailed precision.

Automation ensures a quality process

During a twenty-four hour period, tens of thousands of kilos of finished products made on several production lines will pass through

a single Fazer Bakeries unit. Bread and cakes are baked around the clock, but the most hectic production takes place close to delivery time, in other words, at around four in the morning. As soon as the stores are open, consumers can buy bread to put on the breakfast table while it is still warm.

“Making a production batch does not usually take very long. If a batch is substandard, the amount of products that have to be recalled can be cut to the bare minimum.”

The distribution center at Fazer’s Vantaa plant is almost entirely automated. This means that Cimcorp’s MultiPick robots handle the order picking and buffer storage of finished goods from production, and move them ready for transportation. In addition to delivering optimal speed and accuracy, the system memory stores data on the products that have passed through it.

The data collected during the process has to be kept for the required time and traceability data must be submitted to the authorities upon request. The most essential first-class data includes the names of the customer, supplier, and products, and it must be possible to forward them immediately. Second-class data includes the product quantity, batch information, and the detailed product description.

“Thanks to automation, we know even to the minute where individual products are and how much raw material was used in them. The monitoring of quality, process step by process step, is of paramount importance for all products. When you know how many products of a certain date are being transported in the delivery vehicles, it gives you more accuracy for product recalls.”

At Fazer the functionality and prac-

tical procedures of product recalls are tested annually.

“Information about substandard products may come from the customer or the retailer, after which notification is forwarded to the crisis group that decides on recalls. In such cases of course clear models and practices of how to proceed must be ready: who to contact, how to communicate information about the issue. However, actual product recalls are extremely rare,” says Ihantola reassuringly.

Traceability gives added value

Product safety is not improved by traceability alone; it also requires effective monitoring techniques and logistics systems.

Evira, the Finnish Food Safety Authority, oversees the safety, quality, and composition of food products in Finland. The authority’s tasks include the prevention and elimination of health hazards caused by food products. In practice, food products are overseen by municipal health authorities, veterinarians, health inspectors, and food inspectors. In addition, firms are also obliged to oversee the production and the quality of their food products.

Food traceability guidance and practices have been collected in the EU-funded EU-FoodTrace project, which examined trace-

ability in different countries in Europe. In the major food-producing countries, traceability works quite well, although the traceability of bulk raw materials and batch tracking are partially just estimated.

However, the demands for product monitoring are becoming stricter all the time and for this reason it is essential that the food producers’ production logistics keep one step ahead. Automation makes the processing of food products safer, more efficient, and faster. As the production process shortens, products can be made with even shorter delivery times.

But consumers are also more aware these days of the quality and production history of the products that they buy. As far as organic products and genetically modified ingredients are concerned, traceability is required by law. As for products based on an ecological production method or the local food approach traceability is the only way to prove the real origin of the product.

Traceability is not only a method whereby substandard products can be withdrawn from the market but also a value-adding factor for food products. In the global market, the origin of finished products and their ingredients interests the consumer more and more, and this trend shows no sign of weakening in the future either.

• TEXT: HENRI ALINEN • PHOTOS: FAZER BAKERIES



“Traceability per se does not make the food product safe. It is a technique whereby food safety issues can be managed in a controlled way,” says Pekka Ihantola, the development manager of Fazer Bakeries Finland.



1

raw material arrives at our warehouse
• supplier and batch IDs are entered

2

product is baked and packed
• product is given best before date

3

product is transferred to buffer storage
• retailer’s order is picked

4

product is delivered to retailer
• consumer buys product

5

potential product recall
• product recall can be carried out with detailed accuracy using best before date and ID kept in the system memory