Quality approaches in consumer-driven poultry meat production

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Summary
Total quality management through the whole production chain is the only way to fulfil the demands of the consumers and to offer them safe, nutritious and attractive poultry meat products for a fair price. Food safety and a customer oriented supply chain production are the items now and for the future.

Consumer-driven poultry production
Social-economic and demographic developments have resulted in changing consumer demands. Consumer demand factors such as higher product quality, greater convenience, more variety, concern for health, food safety and nutrition, sensitivity to environmental and sustainability issues and price-consciousness have led to a huge range of consumer expectations. As a result, there has been and still is a rapid change towards consumer-driven rather than production-driven animal product supply chains and networks.

Key success factors
In poultry meat supply chains and networks a close cooperation among stakeholders, i.e. breeders, farmers, veterinarians, animal feed suppliers, processors and customers such as retailers, food service and industry is of utmost importance. Transparency, openness, communication and integration of information are the basis for success, as well as continuous innovation inspired by consumer demands and new technological developments. A continuous cost optimization on a supply chain level is necessary to remain successful. Economic simulation models are used as tools by the supply chain manager to calculate different “what-if” scenarios.

Quality approaches in poultry meat supply chains and networks
The key success factors mentioned all emphasize the importance of quality assurance. Quality can be simply defined as meeting consumer expectations. In the last couple of years food safety has been a key driver for the development of quality assurance programs. HACCP-based systems have been introduced on a large scale and strict quality controls prevent food safety incidents. However, similar approaches can be used for other food quality characteristics, including the ones related to sustainability. After all, basic quality assurance elements such as organization, responsibilities, risk assessment, identification of critical control points, setting of critical limits, implementation of effective procedures for monitoring and corrective actions and verification of procedures apply in many situations. Although not yet implemented in most organizations, total quality management systems throughout the supply chain will be the hallmark of consumer-driven poultry production in the near future.

Quality approach in Nutreco
Nutreco is an international animal nutrition and fish feed company, creating value through food chain expertise. The company holds selective downstream positions in the poultry and fish chains.

In order to produce high quality products with the enclosed information for the customer, Nutreco developed NuTrace®. This overall approach to food chain quality and information is built on four pillars which have been interlinked:
• NuTrace Certified Quality
• NuTrace Monitoring
• NuTrace Risk Management
• NuTrace Tracking and Tracing

NuTrace Certified Quality
NuTrace Certified Quality is Nutreco’s commitment to international quality standards in all parts of the chain. The systems used are based on HACCP and have been certified by independent accreditation bodies. They are benchmarked against the internationally recognized Global Food Safety Initiative, a set of standards endorsed by a group of leading international retailers. Specific requirements have been added on top in certain markets, based on customer demands, as well as demands of other stakeholders such as NGO’s, governmental organizations and politicians.

NuTrace Monitoring
NuTrace Monitoring comprises internal and external monitoring to provide Nutreco with comprehensive knowledge and understanding of all products at every stage of the supply chain. Constant product testing is carried out to check whether the correct specifications are met in order to ‘deliver what we promise to deliver’. In addition, close monitoring acts as an early warning system by helping to detect any undesirable substances. Special emphasis is on the sourcing of raw materials. Suppliers are audited continuously and products checked rigorously at accredited laboratories. For feed materials, a ‘double traffic light’ procedure for suppliers and their products is used based on extensive risk assessment. Only suppliers with a ‘green light’ are allowed to deliver ‘green light’ products to Nutreco companies. Suppliers with a ‘red light’ are not allowed to deliver and those with an ‘orange light’ have to be double checked. All results of the monitoring programs are communicated and evaluated with the supplier. Methods for both fast, broad-spectrum screening and accurate determination of undesired substances and microbial agents have been and are being developed. An example is Calux, a fast and broad-screening analysis method for dioxins and dioxin-like PCBs.

NuTrace Risk Management
NuTrace Risk Management has been developed in order to minimize potential risks. It comprises procedures to ensure swift and decisive action in the event of unforeseen incidents occurring to minimize the impact to our customers and our business.

NuTrace Tracking and Tracing
Tracking and tracing through the whole chain, including the suppliers is necessary in order to state the guarantees. Therefore, NuTrace Tracking and Tracing, an electronic system is being developed and will contain information concerning the product and the production process. In the poultry supply chain, this will be information on breeding, hatching, feeding, farm management, veterinary aspects, delivering, processing and packing. This means that the NuTrace Tracking and Tracing system contains all the integrated information from starting materials through to processed products all in one database. This makes it possible to trace back within a few minutes from processed poultry products to for example the feed ingredients used.

NuTrace® starts with traceability, evolves into transparency and leads to trust. In this way the customer has not only access to information of the product but also to the production process like breeding, feeding, health inspection and classification. This is the way to a complete transparent production.