

Basics and application of a quality management system

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“The problem of quality management is not what people don’t know about it, the problem is what they think they do know!”

– P Crosby, *Quality is Free*

Different factors have an impact on product quality, such as the standard of raw materials, equipment involved, the manufacturing process, operational procedures and final delivery of the product to the consumer. The responsibility of food safety and a quality programme does not rest with food regulations or regulatory institutions, but rather with manufacturers, distributors and providers of food (in this scenario, dairy and juice products).

To produce a quality product, a thorough understanding of the above factors, within the scope and essentials of a quality management system, is necessary.

The major objective of this article is to provide a basic understanding of quality concepts and practice in a typical dairy processing company. The framework of a quality management system must always be summarised and understood by taking into account the bare essentials. The bare essentials are:

- An understanding of the definition of quality
- Quality is a three-phase process.
 - Phase 1 is the degree of excellence on the basis of comparison
 - Phase 2 a level quality on a quantitative basis
 - Phase 3 the degree of acceptability by the consumer on a basis of efficiency. This means the adherence to a laid down specification. Adherence in this case means consumer acceptability that is a reflection of the product, service, regulations, the economy of production and distribution
- What do the concepts quality control (QC) and quality assurance (QA) entail?
- Define how quality management can fit into your system. Why is the sustained systematic control of variables necessary? It means the understanding of the interaction between quality management and process improvement.
- Challenges when starting the implementation of total quality management (TQM).
- The role of management.

Setting up good manufacturing practice (GMP) and progressing to HACCP

Implementation requires a systematic approach. Understand, know and define the building blocks of the Quality Pyramid (*Figure 1*), namely good laboratory practice (GLP), good manufacturing practice (GMP), supplier quality assurance (SQA) and hazard analytical critical control points (HACCP). Then you can start implementation of total quality management (TQM) from the correct level. Analyse the implementation process and measure quality output. Monitor and measure progress. Audits and training play a major role here. Then one can complete and maintain the implementation of the Quality Pyramid.

The PDCA approach

Implement a PDCA (Plan, Do, Check, Act) culture in the organisation. This will increase and strengthen awareness, resulting in systematic progress during



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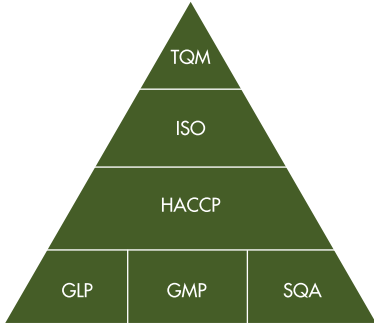
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FIGURE 1: The Quality Pyramid



implementation of a TQM programme (Figure 2).

The departing point in the implementation of any TQM programme is based on the implementation of GLP, GMP and SQA. These three programmes are prerequisite requirements for the implementation of HACCP. HACCP implementation and accreditation can be managed by ISO (ISO-9001:2000). ISO and HACCP implementation can happen parallel to each other.

TQM is a system approach style of management. It has a lot to do with attitude and style. Attitude and style determines a company's destination. TQM is a reflection of each employee's attitude and the desire to do even better. It requires efficient co-ordination and integration of activities and all employees. A

company's quality vision needs to be driven by the CEO in a "leading by example" fashion.

Synchronisation and integration of all organisational activities are essential. It therefore seems obvious that the quest for TQM and final implementation of a HACCP programme consists of a cycle of activities that must be fully understood and supported by management. Quality is non-negotiable, therefore one needs to create an environment of honesty and a sincere desire to improve the current situation. Remove conventional wisdom – "The problem of quality management is not what people don't know about it, the problem is what they think they do know!" – from the implementation team and monitor progress.

The overall objective with TQM is to optimise the supply chain in terms of safe, sound and defect-free goods. From the dairy and juice industries' point of view, optimisation is consumer acceptability, which is a reflection of the specific product, service, regulations and the economy of production and distribution. In other words, an adherence to a laid down specification, namely quality. From the consumer's point of view, the dairy and juice industries must make sure that a product remains good value for money on a basis of quantitative and qualitative comparison. If you can deliver in such fashion, then you have succeeded in a TQM approach. **M&J**

FIGURE 2: The PDCA approach

