# Rules of thumb for best practice quality management systems in the poultry meat chain and fruit and vegetable chain

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## 1 Introduction

This paper presents the first Dutch results of the PromSTAP project 'Best Practice Quality Systems' (BPQS) and is focused on recommendations for best practices for quality management in small and medium sized firms (SMEs). Although many problems accompany the implementation of quality management systems, in every sector of the food industry there are examples of firms which are progressively working on improving quality and safety of their products. These systems will be used for studying best practices in order to come up with recommendations for other firms. The second part of the project about recommendations for self regulation for quality assurance is currently worked out. At the end proposals for dissemination of the obtained results in the regions are discussed.

## 2 Description of the study sample

To get more insight in how best practice quality management was executed in the poultry meat chain and fruit and vegetable chain, a number of in depth interviews were carried out in the period from July to September 2006. Per sector one primary producer, one trader or processor, one person employed at an interest organisation (like a Product Board or trade association etc.) and one certifier for primary producers were interviewed. Also representatives from the Dutch Ministry of Agriculture, Nature and Food Quality and the Dutch Food and Consumer Product Authority were interviewed. The average work experience of the respondents was nineteen years and for many respondents quality management was their full time job, assuring that respondents were well informed about the developments with regard to quality management.

## 3 Recommendations for best practice quality systems for firms

In this section important recommendations for best practice quality management systems are described. During the interviews it became clear that many practices were present in both sectors and could be easily transferred to from one sector to another. Therefore recommendations are not written for each sector separately. The best practices are described along a number of issues that have an impact on the implementation of quality management systems and are studied in the PhD research of the author.

## 4 External business environment

## Applying standards

In order to deal with requirements from various sources, like legislation from the government and demands of action groups and customers firms often use certain standards as good practices. In many sectors 'basic' kind of quality systems exist (like Eurep-GAP for primary producers in the fruit and vegetable sector), but also systems that deal with specific requirements in which the requirements are much higher than requested by law.

## Sector-wide initiatives to deal with external demands

Participating in sector-wide initiatives developed for dealing with certain demands can be regarded as another best practice. These initiatives are usually developed by interest organisations or product boards.

## Collaboration with action groups

For some firms that are dealing with external pressure an effective way of working turned out to invite members of the action groups and to exchange opinions about the sources of conflicts and possible solutions. A fruit and vegetable trader developed and launched in close co-operation with action groups and suppliers product market combinations that take into account many requirements of action groups.

# Pro-active participation on demands

Some firms turned external pressure into a competitive advantage by making their production processes transparent with regard to these pressures, which has a positive effect on the imago and reputation of the firms.

## 5 Specific investments

## Qualified personnel

The firm's personnel constitute important resources to obtain more knowledge about quality than other firms. Learning and training of the personnel (and possibly suppliers) to make them familiar with quality related issues and to introduce new or changed parts of the quality management are regarded by respondents as important investments. For big firms, like many traders and processors, investments in personnel often results in the employment of a quality manager. Small firms have not the (financial) resources and the need to employ a quality manager and hire personnel from external quality advisors.

## Administration and registration

For adequate quality management firms have to invest in administration and registration. Quality management can become a burden when descriptions of the processes are very bureaucratic. These respondents stress that a best practice is to develop quality management systems that describe the processes briefly and practically, but include all the essential things, doing not more as necessary.

# 6 ICT

# Standardisation

Due to procedures included in quality management systems, quality indicators are measured, stored and transferred in a standardised way. Therefore firms exactly know to which kind of quality requirements they have to comply with, making quality management more transparent. Respondents from interest organisations mentioned that ICT offers the possibility for firms to participate in sector wide initiatives, because many of these systems are dependent on the delivering of digital data in a standardised way. Standardisation in quality management systems offers possibilities for another best practice: benchmarking.

## Availability of data

Standardisation and integration of quality management make it possible to adequately answer questions from customers, because more information is available. If firms fail to deliver specific additional data when customers ask for it, customers will doubt about the reliability of the quality systems.

# Integrate data of quality management with total business performance

Quality systems should be aligned and integrated with the usual production processes and accompanying information systems and should not be stand alone systems. By aligning quality management in the normal firm performance quality management will be regarded as a normal part of the total firm performance. These systems are especially effective if more sequential parts of the chain are integrated in such systems.

# 7 Management support

# Drenching quality management through all processes in the whole firm

Firms have to believe in quality management and the concept has to be 'alive' within the firm and not a book on a shelf. These firms are aware of the necessity of good quality management and it has influence on all production steps. Often the awareness of the importance of quality management starts on the management level and goes down through the total organisation. The personnel will find it back in working instructions and the management will give good examples to its personnel.

# Introduce audits announced and or with high frequencies

Audits provide the management with information about the performance of their quality management. Most systems are audited once or twice a year in order to check whether the system describes the processes well and the firm is behaving according the procedures. Often just before auditing, firms take care of the quality systems that they work well. However quality conscious firms want to prevent fluctuations in quality performance as much as possible. In order to achieve this objective these firms have much higher audit frequencies of their quality management compared to other firms and can therefore faster evaluate modifications to the system.

# Analyse data being gathered in the quality management system

Many measures in quality management system are being taken and the levels of these measures are often only compared with minimum or maximum limits in order to judge whether or not the products comply with the quality requirements. However the data being collected over time contains a lot of information often per time period, supplier, product, etc. If firms should analyse this data it becomes possible to steer on the outcomes of these analyses and to eliminate the sources of quality problems.

## 8 Commitment

## Panels

Respondents mentioned the existence and importance of panels in which comparable primary producers are united, which serve as communication channels between primary producers and traders and processors and are very useful to increase commitment in the chain. Among suppliers in the panels there is a vivid discussion of all kind of topics aimed at improving the quality performance. Respondents explicitly mentioned that in relationships with strongly integrated quality management, firms take the initiative to make customised appointments to assure quality in order to prevent complaints and achieve higher customer satisfaction. Complaints from both sides can be discussed and ways of improvement can be identified.

## Committed traders search committed primary producers and the other way around

Respondents indicate that traders who are very quality conscious will choose growers that are also very quality conscious and the other way around. Traders included in this study have built a kind of expertise in choosing the right growers. Due to the monitoring of their suppliers in the quality management systems, they are able to select suppliers who can comply with specific and stringent quality requirements of their own customers.

## 9 Dissemination of the results

This paper describes the first results from the case studies in the Netherlands. In the other regions the same way of working will be carried out, although the kind of system might differ. For example Rhône-Alpes studies environmental management and occupation health systems. The results of the regions and systems will be compared and will lead to:

- Identification of the critical success factors for applying best practice quality management and self regulation in agricultural chains including SMEs.
- Development of a blue print for establishing a model for best practice quality management combined with self regulation including SMEs.
- Recommendations for the role of public-private institutions for establishing more self regulation for quality management in the chains.

The term quality can mean food quality, environmental quality or occupation quality in this project. Within each region the outcomes of the project will be discussed in expert group meetings for which the interviewees will be invited.

During these meetings interviewees can verify and give feedback about the obtained results. Experts from one sector can learn from solutions that are originated in another sector. Moreover it offers also possibilities for experts from business to meet experts from governmental agencies. The obtained results will also be published in the professional press and scientific journals