

Implementation of HACCP in Very Small Businesses

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Abstract

Small businesses often have difficulties in addressing national and international legislation on Food Quality/Safety. The lack of technically trained personnel and economic constraints make it difficult for small businesses to comply with stringent and ever changing legislation.

In this communication we will introduce an on-going project aimed at disseminating Good Manufacturing Practices and HACCP implementation in the manufacturing of traditional cheeses produced in the Centre Region of Portugal.

The project is being developed in five main areas: 1- Development and dissemination of Good Manufacturing Practices during milk production; 2- Development and dissemination of Good Manufacturing Practices during cheese production; 3- Implementation of HACCP in selected traditional cheese plants; 4- Development and dissemination of Generic HACCP Plans for the production of cheese; 5-Development of an Internet site for the dissemination of the produced material.

Keywords

HACCP, Small Business, GMP, Dairy, Cheese

Introduction

The implementation of HACCP in Portuguese food industry became compulsory in 1998 with the publication of the decree-law 67/98 that transpose to Portuguese law the European Council Directive 43/93/EEC. According to this decree-law food business operators should identify all the steps in their activities in order to ensure food safety and should create, implement, maintain and follow adequate safety procedures. In these activities, designated by self-control, and according to the same decree, the following principles should be followed:

- Analysis of the potential food hazards in the food business operation;
- Identification of the operational steps where hazards may occur;
- Determination of points critical to food safety;
- Definition and implementation of effective control and monitoring procedures at those critical points, and
- Periodical review, and whenever the food business operations change, of the analysis of food hazards, critical control points and the control and monitoring procedures.

While based on the same principles used to develop the HACCP system the principles stated in European Council Directive 93/43/EEC differ considerably from them¹. Moreover, the use of the expression “self-control” (“autocontrolo” in Portuguese) in the decree-law, instead of HACCP, has been in the origin of several misunderstandings in the correct application of HACCP in Portugal.

While transposed to Portuguese law in 1998 it took several years before the industry and state agencies started to undertake the necessary steps for the implementation of HACCP nationwide. At present, the full implementation of HACCP is restricted to a small percentage of companies, being implemented mainly by big-sized companies and SME that felt the pressure due to export requirements.

Like in other countries the implementation of HACCP in small companies has been hindered by several reasons²: Lack of technical expertise, lack of government commitment, lack of customer and business demand, financial constraints, human resource constraints, lack of expertise and/or technical support, inadequate infrastructure and facilities, lack of technical information in Portuguese.

The lack of information on HACCP of small and medium sized businesses and even of the personnel of regulatory agencies can be illustrated by several expressions we've heard: “HACCP is labelling taps in the factory” (a member of a regulatory agency) or “We have F₀ implemented, now we have to implement HACCP” (the technical responsible for a medium-sized cannery). A major problem in the implementation of HACCP is the fact the HACCP is often confused with the implementation of basic hygiene measures³.

The Project

The main goal of this project is to disseminate Good Manufacturing Practices and the HACCP (Hazard Analysis and Critical Control Points) in the manufacturing of

traditional cheeses produced in the Centre Region of Portugal, through the production of written material to be distributed to the final users.

Project partners range from academia (*Escola Superior Agrária de Coimbra*), a state Agency (the local branch of the Ministry of Agriculture – *Direcção Regional da Agricultura da Beira Litoral*), and two non-governmental organizations: an association of producers (*Associação Nacional de Criadores de Ovinos da Serra da Estrela*) and a local development association (*Terras de Sícó - Associação de Desenvolvimento*).

With the present partnership we are aiming at building a common understanding of HACCP and Good Manufacturing Practices among those in charge of HACCP in the companies and personnel in the state agencies responsible for the inspection of HACCP and GMP systems.

Taking into consideration that a “farm-to-fork” approach is the most effective means of assuring food safety, the partnership has decided to take an overall approach in the project and considered all the steps from milk production (only GMPs have been considered as the HACCP is not compulsory at this level) to cheese manufacturing.

Development of Good Manufacturing Practices during milk production

The manual being developed consists on several autonomous chapters that can be used independently. At the moment, a first chapter on Good Hygienic Practices during Milk Production is ready for publication.

Development of Good Manufacturing Practices during cheese production

This manual consists of a single booklet to be distributed to traditional cheese plant operators. The manual has chapters on premises requirements, cleaning and disinfection, personal hygiene, good manufacturing practices in the various operation steps, and a list of general legislative requirements.

At the present the manual is being revised in order to incorporate recent changes in legislation.

Implementation of HACCP in selected traditional cheese plants

HACCP implementation is being conducted in selected small Cheese Plants following the accepted guidelines for its implementation⁴.

Due to the lack of internal technical expertise on most of the plants all the steps necessary for the implementation of HACCP (hazard analysis, identification of CCPs, establishment of critical limits associated with each CCP, establishment of monitoring requirements, corrective actions, record keeping procedures, verification) are being performed by members of the partnership in collaboration with the owners of the companies.

Development of Generic HACCP Plans

Based on the experience acquired on the implementation of HACCP, generic HACCP plans are being developed. Generic plans may be used as guidance for business operators; however they are not appropriate for use until customised for a specific plant and process^{Error! Bookmark not defined.}. Special care will be taken in order to alert operators for the need to tailor their HACCP plans according to the specificities

of their products/process. The aim is the development of generic HACCP plans to be used as a starting point for producers.

Generic HACCP plans for fresh cheese, cured cheese and whey cheese production will be developed taking into consideration the regional variations on the processes and the different levels of instructions of the involved actors. The amount of written evidence (records) will be kept to a level as low as possible.

Dissemination of the results

The dissemination of the results of the present project will be performed by several channels. The most important will be by the distribution of the produced manuals to the milk and cheese producers.

The available material will be also used as instruction material in several education actions directed to milk and cheese producers. At the moment a few actions have already been conducted which helped the project team to evaluate the contents and perform several improvements on the contents and organization of this manual.

All the material will be available, at no cost, in the project's internet page. In the future, the internet page will help assuring that all the relevant information will be kept up to date. As one of the main problems observed during the gathering of relevant information to the project was the frequent changes in the legislative framework, this will allow us to keep all the relevant information up-to-date.

References

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³ Untermann, F., 1999. Food safety management and misinterpretation of HACCP. *Food Control*, 10, 161-167.

⁴ FAO/WHO Codex Alimentarius Commission, 1997. Hazard analysis and critical control point (HACCP) system and guidelines for its application. Annex to CAC/RCP 1-1969, Rev. 3. In *Food Hygiene Basic Texts*, Second Edition, Rome, <ftp://ftp.fao.org/docrep/fao/005/Y1579e/>

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