



Pilot Study Progress Report

KARAK DAIRY COMPANY

WP 4
Pilot of Implementation of HACCP
and Food Safety System

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1 Introduction

The project FOODQA “Fostering Academia Industry collaboration in Food safety and Quality” was co-funded under the Erasmus+ Programme. The aim of the project is to create a Jordanian network for promoting entrepreneurship and innovation in the food area, at the same time improving the flow of knowledge and cooperation between the partners.

FoodQA addresses one of the national priorities in Jordan, which is to provide safe food and food quality. Therefore, this project satisfies the need for professional courses that can fill the gap between academia and industry, providing solutions to promote food quality and business. This is achieved by integrating knowledge and expertise from academia on one side and industry on the other side. The development of the FoodQA project will favour the growth of the whole Food system in Jordan, by bridging the gap between of the Jordanian governmental authorities and the industrial community. By means of interface centres for Food Safety and Food Quality in Jordan, FoodQA intends to support the interaction between academia and industry, providing technical and scientific services that can contribute to increase the technological development and the competitiveness of the Jordanian food industry towards a future integration into the European Union, in particular in the area of Food Quality and Safety.

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1.1 Objectives

To facilitate integration of knowledge among Food Business Operators, one of the deliverables of the FOODQA project is to provide guidance and perform pilot studies for the implementation of HACCP, as described by European Regulation 852/2004/EC and amendments, in the frame of the International Standard ISO 22000:2018 for selected industries.

UNITE is responsible for providing guidance and performing these studies for Karak Dairy Company. The Terms of Reference are as follows:

- Pre-audit preparation: review of existing documentation.
- On site HACCP audit to identify gaps.
- Review of the company HACCP system according to European and International standards.
- Comments and clarifications on documentation.
- Finalisation of the pilot study.
- Final on site audit and guidance for the preparation for Certification.

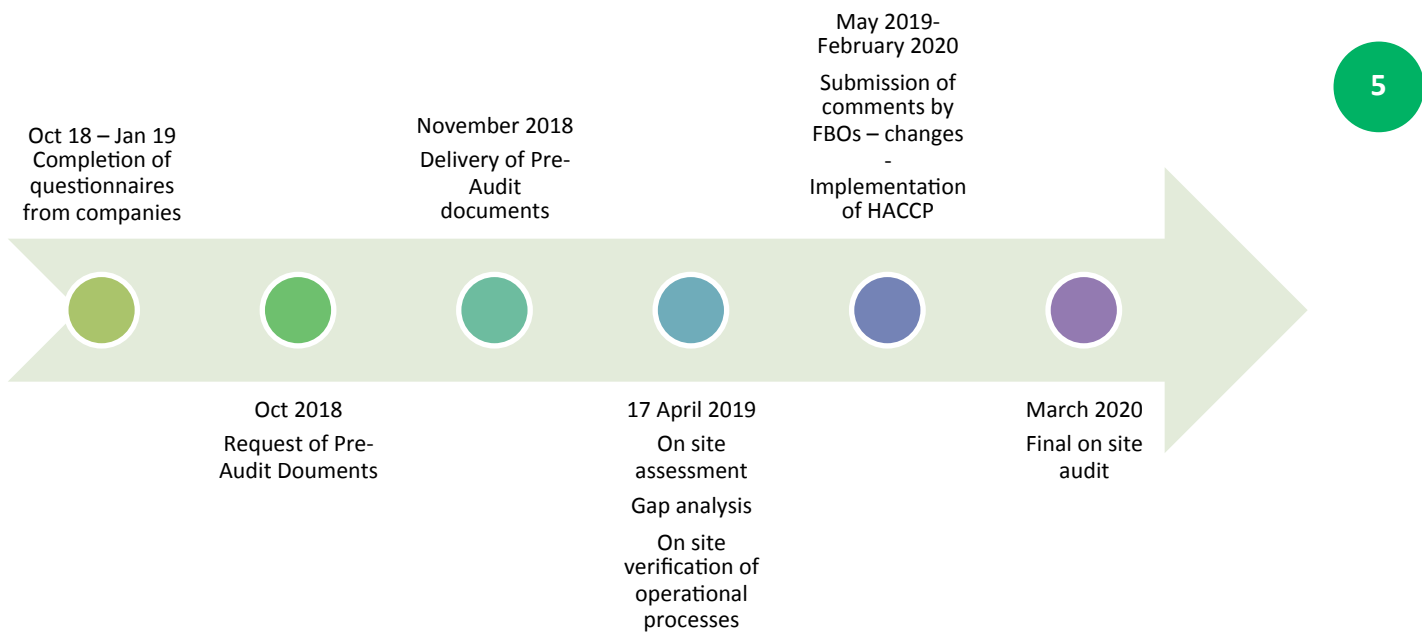
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1.2 Activities timeline



2 Karak Dairy Company

2.1 General

Karak Dairy Company is a small company established in 1998 at Ader, in the Karak Governorate. The company is well known for the production of jameed but it also manufactures other fermented milk products, and namely Labaneh, Shanineh, buttermilk, and White boiling cheese. The production capacity is estimated around 2 tons/day, with 8-9 employees on a single work shift. This company is inspected by Jordan FDA every 3-6 months.

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2.2 Audit findings

The general impression gained from the audit interviews was: the social impact of the company in the region; production based on local excellence and traditional raw materials; the focus of the whole production system on few traditional and renowned recipes; commitment and competence of the management; experienced staff; knowledge of the basic requirements of HACCP; significant hazards were understood and monitored; compact lean manufacturing line. Finally, the staff involved in the implementation of Food Safety Management System can manage the CCPs of the manufacturing process.

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However, as in all organizations, there are opportunities of improvements that are considered in detail below.

First, there was a feeling that the concentration of production activities in 4 months does not provide enough added value to upgrade production facilities towards automatic management of specific unit operations. For example, temperature control during separation and subsequent heating is still manual, pressing does not involve any automatic control of pressure and time (one day), brine is boiled to remove contaminants but then it is not kept under controlled conditions. We believe that extension of production activities, e.g. by exploitation of waste materials as whey, the development of cow milk recipes or functional yogurts or ACEI fermented milks, could provide additional profits for investments.

Second, for the effectiveness of the company's HACCP system, it would be particularly beneficial to improve control of specific process parameters, in particular quantity of added salt, water activity of finished products, microbiology of salt (to prevent product discoloration), curing times.

Third, to facilitate the safety management of the process and improve the workplace environment, we believe that some investments could be useful, especially for air conditioning of production facilities, more space in the separator area, a larger storage room for finished products (directly connected to production areas), and possibly a forming machine that could substitute the manual forming of jameed on the wooden table.

In addition to this, current documentation should be revised to be compliant with the requirements of the HACCP System, as described by European Regulation 852/2004/EC and amendments, in the frame of the International Standard ISO 22000:2018. In fact, the company's HACCP plan mentions a Prerequisite Program and includes only 4 of the 7 Codex Principles. At the end of the plan, the company should give information on the measures applied according to Codex Principle 5 (Corrective Actions, partially considered in Figure 3.1, named as "Adjustment"), 6 (Verification), and 7 (Documentation). In particular, traceability system shall be described, as well as the product recall procedure.

2.3 Pilot study documentation

Documentation for the proposed HACCP system was delivered on 27th October 2018. Documentation that was delivered includes:

- Action plan.
- Pre-audit documents, organized as a list of questions/documents that should be provided at the time of the audit.

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Some comments were received during the first on site audit. In this occasion, the auditee provided additional information on the determination and management of CCPs in the manufacturing process. At the end of the first on site audit, during the closing meeting, the main outcomes of the audit were discussed with the management of the company.

3 Overall Conclusions – Next steps

As the information required for the audit was obtained and no more clarifications are needed, it can be concluded that pilot studies have been finalised.

Considering the small scale of the company (less than 10 workers in the same manufacturing line), according to European legislation on HACCP and in particular Regulation 852/2004/EC and its guidance documents, Karak Dairy Company can benefit of flexibility and simplification allowed for small businesses. For this reason, the level of extension of the company's HACCP system can be considered sufficient for the purpose of this project. In case the company decides to get prepared for the certification of its Food Safety Management System, guidance will be provided in the frame of the project.

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