CONTROL OF LISTERIA MONOCYTOGENES IN DAIRY FARMS

INTRODUCTION

- Performed in Walloon farms in contact with the PDR project
- L. monocytogenes characterised by its ubiquity
- Numerous sources of contaminations: environment, cross-contaminations, post-contaminations, mastitis,…

OBJECTIVE

- Process of raw milk butter and cheeses improving to control L. monocytogenes contaminations using HACCP method

MATERIEL AND METHODS

- 228 butter samples
- 66 raw milk cheeses samples
- Petriflms 3M total flora for surface taking
- ALOA method /AFNOR validation (AES 10/3 – 09/00) for L. monocytogenes detection and counting
- NF V 08-050 Norm for coliforms counting

RESULTS AND DISCUSSION

The project

- PDR context (Walloon Project for Rural Development)
- Consists in helping manufacturing farmers and artisans using HACCP and self-control
- Co-financed project by the General Direction of Agriculture of the Walloon Region Ministry and Europe (FEOGA)

MATTERIEL AND METHODS

- Non representative samples of Walloon global situation
- Shares conformity evaluated in accordance with the Belgian law (A.R. 15/12/94) for L. monocytogenes
  - Butter: n=1 ; m=M=c=0 in 1 g of product
  - Raw cheeses: n=5 ; m=M=c=0 in 25 g of product

INITIAL SITUATION

- Listeria monocytogenes analysis

PROBLEM SOLVING METHOD

- Hygienogram: review of the cleaning and disinfection programs ⇒ most contaminations resolved
- Analysis: at each step of production (milk, cream, butter, cheese): L. monocytogenes and coliforms ⇒ stage of contamination
- HACCP analysis ⇒ critical control points and supervision actions

CONCLUSION

- A good control of HACCP prerequisites, products HACCP analysis and a good knowledge of product characteristics allow to control L. monocytogenes contaminations in dairy farms raw milk products.
- Stabilisation of raw milk cheeses production is guarantee by a correct and sufficiently rapid acidification coupled with a decrease of the water activity. These parameters are critical control points and request supervision during production.
- It is recommended to use warm milk and to cool it quickly (transformation must always begins within two hours after milking) to the fermenting temperature (to 20-22°C for cheese making and to 10-16°C for butter making).