

Characterisation of temperature distribution in Europe at retail level

Hélène Bergis
Mission MOD-AQR

INTRODUCTION

- In 2010-2011, a EU baseline survey was conducted, investigating for the first time in Europe *Lm* contamination in ready-to-eat foods at retail level.
- More than 13 000 food items were collected in 30 European Countries.
- Storage temperature at retail was measured at the surface of the collected foodstuffs, so more than 10 000 food temperatures were recorded.
- At the last workshop, EURL *Lm*, together a NRLs WG, have expressed their request to get these data, to better describe the European cold chain at retail level.
- At the meeting of WG on microbiological criteria (12/05/2014) and SCoFCAH meeting of 16/06/2014, MS Competent Authorities unanimously agreed that EURL *Lm* has access to this information



COLLECTED DATA

- Retail outlets where the food items were taken, were classified in 4 types:
 - Supermarket or small shop (defined as a retail selling both food and non-food products)
 - Street market or farmers' market
 - Speciality delis (defined as shops selling food of high quality)
 - Other

- The selected food categories were the following:
 - smoked or gravad fish
 - packaged heat-treated meat products
 - soft or semi-soft cheeses



DATA ANALYSIS

- Distribution of storage temperature will be built :
 - by type of retail outlet
 - for any type of food
 - for each category of products
 - by season
 - for each type of retail outlet
- Distribution will be characterised by the following parameters :
 - Mean (° C)
 - Median (° C)
 - Standard deviation
 - Lower Level – Upper Level
 - First and third quartile



INTEREST

- This is valuable information to assess the shelf-life of RTE foods
 - When performing durability studies or challenge-test studies, the huge impact of the temperature on the shelf-life of a product has been illustrated
 - These data could be used to detail the « foreseeable conditions » of distribution to which RTE foods are presented
 - It could help to simulate the cold chain and predict more accurately the growth of *L. monocytogenes* in RTE foods
- This study will be finished by the end of the year



Thank you for your attention

