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Sanitation in the Food Industry:

preventive measures and validation

PRESENTATION PAR AFFICHE SCIENTIFIQUE

RFLP-PFGE TRACKING OF *LISTERIA MONOCYTOGENES* IN A QUEBEC PORK CUTTING AND SLAUGHTERING PLANT

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Listeria monocytogenes is a major public health concern as the 2008 episode illustrated. In Canada, there is curently no surveillance policy of this microorganism in the steps of the production before the transformation of ready-to-eat products. Hence the presence of this microorganism in these environments is not well documented. To describe it's presence and it's circulation, we sampled a Quebec cutting and slaughtering plant in the lairage pens and on representative areas of the slaughter process and of the cutting zones after washing and disinfection on a period of two years. 924 samples were considered. *Listeria* detection followed the MFHPB-30 Health Canada standard, serotype confirmation were obtained by PCR and the isolates were caracterised by Apa1 and Asc1 RFLP-PFGE genotyping. We reported detection of *L. mono* in all the stages of the production. Of the positive strains 4 different serovars (mainly 1/2b) emerged. The PFGE patterns showed the presence of a variety of different strains in the two first zones of the plant and the presence of a major strain in the environment of the cutting room (type 1 representing 96.1% of the strains at this step). Furthermore, we have linked strains found at the beginning of the production steps and strains in the cutting room. These results support the idea that *L. mono* can enter the plant with the animals, contaminate further steps of the production and that some of the strains can be selected in the environment to become major and persistant.