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Présentation par affiche (poster)

Descriptive study on *Salmonella* contamination on yard of pig slaughterhouse

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In pig production, research efforts focused on control of pathogens and zoonotic agents in primary production, slaughter and further in the meat production. But to maintain the continuum in pathogen control in production, it appears to be a lack of knowledge concerning the herd-slaughter interface contamination level. The abattoir's yard appears as a central point of the relation between primary production and meat production. The aims of this study were: 1) to describe the contamination by *Salmonella* and compare 3 distinct pathways of intense circulation of truck in the slaughterhouse yard: the delivery pathway of slaughter pigs, in front of the dead animal quartering place and the disposal of the nonedible meats area. 2) to study the qualitative and quantitative distribution of the contamination 3) to test, in the Quebec context, the possibility of seasonal effects on the observations. Forty- two 1m² of tire footprints soil samples were collected at 14 repeats over a period of 8 months, during consecutive seasons from summer to winter. *Salmonella* detection followed the ISO 6579 procedure. We found 28 (n= 42) positives samples and not less than 15 different *Salmonella* types were detected. *S. Typhimurium* and *S. Infantis* were the most prevalent. The same level of detection was observed whatever the considered place in the yard, but significant difference in serovar detection appeared. Detection of *Salmonella* Typhimurium is significantly higher in the places related to delivering animals and carcasses disposal (Fisher test p=0,01); Season and temperature impact on *Salmonella* detection on the yard with a lower detection in winter (chi² p=0,001). These original results are to be considered in biosecurity perspectives in a slaughterhouse-farms network, that identify vehicles as contamination's vector of *Salmonella* (itself and as an indicator of other bacterial pathogens) from the farm and back to the farm.