

ON-FARM PRESLAUGHTER TESTING OF SWINE FOR HUMAN FOODBORNE PATHOGENS.

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Le but de ce projet était de comparer les résultats de la culture bactériologique des échantillons porcins prélevés à la ferme d'origine aux résultats obtenus lors de prélèvements post-mortem plus intensifs à l'abattoir. Des tampons ont été pris de l'oropharynx et du rectum lors du chargement vers l'abattoir, et immédiatement après l'abattage de l'estomac, de la région iléocécale, du côlon ascendant et du rectum. En plus, du tissu tonsillaire a été prélevé. Les échantillons ont été pris dans 4 abattoirs de 211 porcins dans 10 chargements en provenance de 5 fermes du sud de l'État de Géorgie. Les spécimens ont été mis en culture pour la détection de *Salmonella* spp., *Yersinia enterocolitica* et *Campylobacter coli/jejuni*. *Salmonella* spp. a été décelé seulement dans les échantillons prélevés à l'abattoir, tandis que *Yersinia enterocolitica* a été isolé d'échantillons prélevés à la ferme et à l'abattoir. Aucun isolat de *Campylobacter coli/jejuni* n'a été obtenu

Enhanced detection and prevention of microbiological hazards at slaughter are important tools for reduction of microbiologic agents pathogenic to humans on meat and meat products. However, many of those pathogens are acquired by the animals on the farm, and control at the farm could reduce the risk of contamination of carcasses and pork products with human enteric pathogens at slaughter.

Salmonella spp., *Yersinia enterocolitica* and *Campylobacter coli/jejuni* are agents frequently related to foodborne disease in people consuming pork and pork products. Prevalence of colonization with those agents of finished and cull hogs at the farm prior to shipment to slaughter has not been determined. These prevalences likely are influenced by farm management factors and eventually could be manipulated through management intervention. The immediate objectives of this project are the determination of prevalences of these human enteric pathogens in swine at the time of shipment from the farm to slaughter and the determination of sensitivity of sampling prior to shipment compared to sampling after slaughter.

Oropharyngeal and rectal swabs were collected at the farm just prior to loading, and a tonsil tissue specimen and swabs from stomach, ileocecal junction, spiral colon and colorectum were obtained at slaughter. Two hundred eleven swine in 10 shipments have been sampled. Shipments originated from 5 farms and swine were slaughtered at 4 plants. *Salmonella* spp. have been isolated from 6 swine from one farm in 2 shipments from all 5 slaughter sampling locations, but from none of the on-farm samples. *Yersinia enterocolitica* has been isolated from 5 on-farm rectal swabs and 6 tonsil specimens from 9 swine from 1 operation, with 2 swine having positive tonsils and rectal swabs. *Yersinia intermedia* was isolated from the tonsils of one pig. *Campylobacter coli/jejuni* were not isolated. Other notable isolates from tonsils were *Staphylococcus aureus*, *Streptococcus agalactiae*, and *Streptococcus uberis*.

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