**MATERIALS AND METHODS**

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The results of this study confirm that Clostridium difficile is carried in the intestinal tracts of food animals arriving at slaughterhouse and is present on carcasses at Belgium slaughterhouse. This fact shows that there is a clear potential for contamination of meat in the slaughterhouse.

**METHODS**

Culture was carried out using an enrichment step. One gram of feces was inoculated into 9 ml of CCFBT and incubated anaerobically for 72h at 37°C. As for the carcass samples, the four cottons used for swabbing each individual carcass were homogenized with 40 ml of CCFBT and incubated anaerobically for 72h at 37°C. Subsequently, 10μl of the enrichment broth of each type of sample was spread onto CCFAT and incubated at 37°C for two days.

An identification of the isolated colonies was done by PCR detection of tpi, tcdA, tcdB and cdtA genes. Toxic activity was also confirmed by a fecal cytotoxin immunoassay. Further characterization was performed by PCR ribotyping.

Clostridium difficile was found in 10% and 1% of the cattle and pigs intestinal samples respectively. Concerning carcass samples, Clostridium difficile was recovered from 7% of the swabs from cattle and 6% for pigs. A total of 15 different PCR ribotypes were identified including PCR ribotype 078, 029, 014, 015, 023 and 081. (Refer to table.1)

**RESULTS**

<table>
<thead>
<tr>
<th>Sample origin</th>
<th>PCR-ribotype</th>
<th>tcdA</th>
<th>tcdB</th>
<th>tpi</th>
<th>cdtA</th>
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</thead>
<tbody>
<tr>
<td>Pig fecal samples</td>
<td>BR016</td>
<td>POS</td>
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<tr>
<td>Cattle fecal samples</td>
<td>BR001</td>
<td>POS</td>
<td>POS</td>
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<tr>
<td>Pig carcasses</td>
<td>BR026</td>
<td>POS</td>
<td>POS</td>
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<td>Cattle carcasses</td>
<td>UCL270</td>
<td>POS</td>
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</tbody>
</table>

**CONCLUSIONS**

The results of this study confirm that Clostridium difficile is carried in the intestinal tracts of food animals arriving at slaughterhouse and is present on carcasses at Belgium slaughterhouse. This fact shows that there is a clear potential for contamination of meat in the slaughterhouse.

**ACKNOWLEDGEMENTS**

Our most sincere thanks to the public slaughterhouse of Liège- Waremme. Special remarks to SPF ZOODIFF RF09/6226, sole funder of the project.

**INTRODUCTION**

**OBJECTIVE**

Clostridium difficile is a major cause of nosocomial acquired diarrhoea and colitis after use of antibiotics. With the recent isolation of this bacterium in healthy carrier food animals and retail meats, the possibility for foodborne transmission is a current concern.

**SAMPLING**

Intestinal contents (100) from pigs and cattle (100) were collected from the slaughter line, directly from the last intestine in the viscera processing area. Carcass swabs (100 from pigs and 100 from cattle) were collected post slaughter, after entry into the chilling room. Surface swabs of 1600cm² on cattle and 600cm² on pig carcasses were collected.