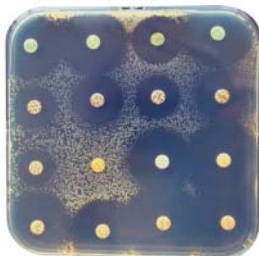


Sampling considerations for herd-level measurement of faecal *E. coli* antimicrobial resistance in different types of calves, pigs and turkeys production

Yannick L. RUGRAFF - DVM, PhD - ITP - B.P. 35104 - 35 651 Le Rheu Cedex - FRANCE - yannick.rugraff@itp.asso.fr

CONCLUSIONS

- Resistance-levels of *E. coli* present differences between species and production systems.
- Faecal samples seem to be more pertinent than environmental ones.
- Results of prevalence of antimicrobial resistance may present variations between similar samples.
- Results of resistance prevalence must be interpreted very carefully.



AIMS

- Estimate resistance of *E. coli* in calves, pigs and turkeys herds with different exposition to antimicrobial agents.
- Establish a reference for risk analysis of antimicrobial resistance.

METHODS

Two herds by production, with high or no antimicrobial use, and four samples by herd :

- A and B = 30 faecal swabs before slaughter - C = environmental sample - D = 30 faecal swabs, on another batch.
- 60 *E. coli* by sample tested against 16 antimicrobial agents by disk diffusion.

INTRODUCTION

E. coli constitute an indicator bacteria for antimicrobial resistance and can be a reservoir of antimicrobial resistance genes to be transferred to other Gram-bacteria. It became urgent to set up measures in order to evaluate the importance of resistant bacteria with harmonized surveillance programmes.

RESULTS

Percentages on non-susceptible *E. coli* (% "NS") for the 4 samples (A, B, C and D) in the 6 herds.

