

Chicory (*Cichorium intybus* L.) in weaned pig diets

Liu, H.Y. and Lindberg, J.E.

CONCLUSION

Chicory forage and root (inulin) affected intestinal pH, organic acids and microbiota composition differently in weaned pigs.

INTRODUCTION

There is limited information on the use of chicory (*Cichorium intybus* L.) forage in pig nutrition. The plant has high content of uronic acids (the building block in pectin), and has potential to be used as fibre source in pig diets.

AIM

To investigate the effect of chicory forage and root (inulin) inclusion on intestinal pH, organic acids and microflora composition of weaned pigs.

MATERIAL AND METHODS

Eighteen weaned pigs were fed a control diet (C) and 2 experimental diets with inclusion (80 g/kg) of chicory forage (CF) or inulin (I).

After feeding for 20 days, ileal and colon digesta samples were collected for pH measurement and analysis of organic acids and microbiota composition using the PCR-based T-RFLP method.

RESULTS

- Numerically, the concentration (mmol/l) of acetic acid in colon digesta was higher ($p=0.07$) on diet CF (82.0) than on diet I (73.1).
- The T-RFLP data revealed 70 TRFs in ileum and 79 TRFs in colon, indicating a more diversified microbiota in colon than in the small intestine.

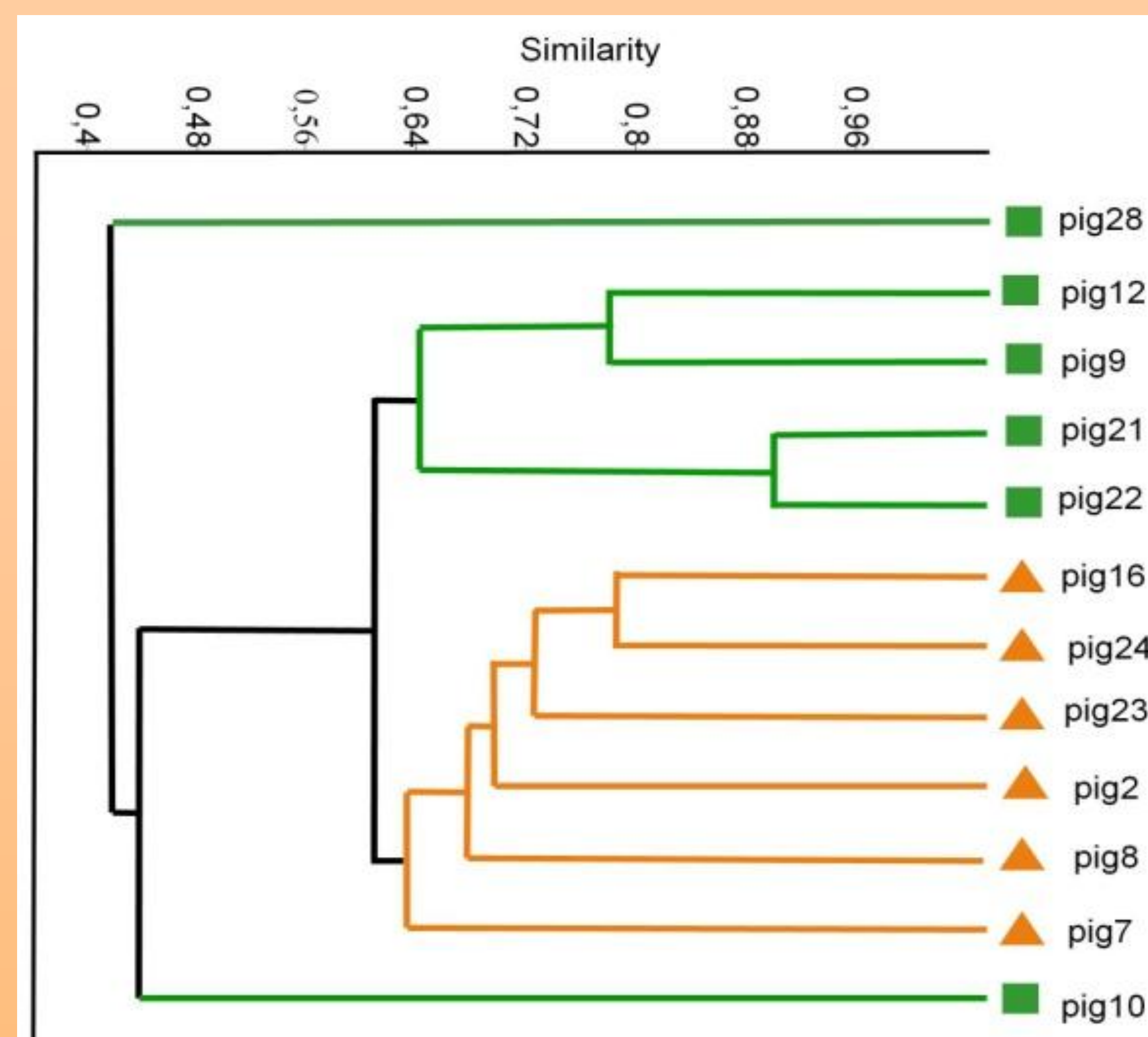


Figure 1. Cluster analysis of colon digesta from individual pig T-RFLP profile. The chicory forage diet is symbolized with green branches, and the inulin diets with orange branches.

- The composition of the intestinal microbiota was highly individual. However, colonic samples from group CF and I were clustered in a pattern (Fig. 1.).

