

EFFECT OF TYPE OF FLOORING ON PIG LYING BEHAVIOUR AND SALIVARY CORTISOL LEVELS

Martín, P., Mateos, A., Ovejero, I., Villarroel, M.
 Department of Animal Science, ETSI Agrónomos, UPM, Spain
 morris.villarroel@upm.es

AIM OF THE STUDY

- Compare the behaviour and stress levels of fattening pigs using two types of partly-slatted housing
- Evaluate the measure 'salivary cortisol' as a non invasive Animal Welfare indicator

INTRODUCTION

Southern Europe → warm climates
 ↓
 Partially slatted floor → thermal comfort ↑
 ↓
 Has type of flooring effects on welfare?

MATERIAL AND METHODS

- 112 focal pigs LW x LD (Pi), 16 pens
- 2 types of flooring
 - Metal slat, epoxy resin floor (RM)
 - Concrete slat, concrete floor (CC)



- **Behavioural scan (ethogram)** → 5min intervals, total 8 hours per pig

• Salivary cortisol

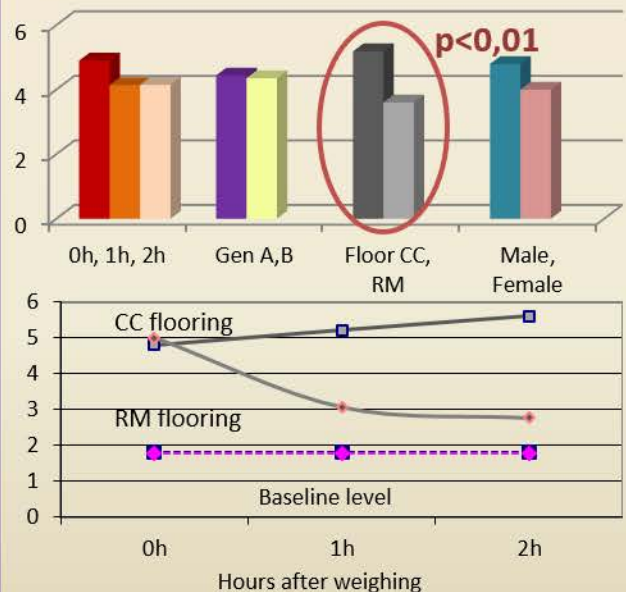
- Control saliva sampling → 1 pig/pen, 3 days, 2 samples/day (AM and PM), total 96 samples
- Saliva sampling after stress → 0, 1, 2 hours after weighing, 3 pigs/pen, total 144 samples

RESULTS

- **Behaviour** → Pigs spent more time lying on the metal slats (RM) than on the concrete slats (CC), $p < 0,001$

• Salivary cortisol (ng/ml)

- No differences in basal cortisol levels
- Significant differences after weighing



CONCLUSIONS

- Pigs prefer metal slats to lie when the T^a increases → ↑ thermal comfort
- Thermal comfort → limiting factor in the recovery after a stressful situation
- Salivary cortisol → response to stress