

The effect of an enriched environment on biting behavior and performance of finishing pigs with intact tails

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Introduction

Raising pigs with intact tails might increase the risk of severe tail biting. It should therefore be verified if these pigs need an enriched environment to avoid tail biting outbreaks.

Objectives

This study aims to verify differences in behavior and performance between finishing pigs with intact tails in barren and enriched environments.

Materials and methods

Animals and housing

A total of 90 Hybrid pigs housed in pens with partly slatted floors. Tails were not docked.

Experimental design

Pigs were spread over two groups:

- CONTROL (n = 45; a hanging toy as enrichment)
- TREATMENT (n = 45; a hanging toy and straw blocks as enrichment + a hiding wall)



CONTROL



TREATMENT

Behavioral observations

- Based on a scientific ethogram
- Carried out one day/week before noon and in the afternoon
- Each pig was observed individually

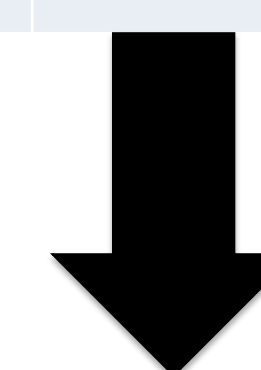
Performance

Pigs were weighed individually at four weighing moments: at the start of the trial (30kg), 6 weeks later (weighing 2; 60kg), 12 weeks later (weighing 3; 90kg) and at slaughter (120kg)

Results

Behavior

Behavior	Control		Treatment		P-value
	Mean	S.E.M.	Mean	S.E.M.	
Stage 1	0.033	0.0052	0.024	0.0038	NS
Stage 2	0.022	0.0022	0.016	0.0021	0.091
Stage 3	0.0081 ^A	0.0024	0.013 ^B	0.0022	0.012



Behavior	Control		Treatment		P-value
	Mean	S.E.M.	Mean	S.E.M.	
Tail					
Stage 1	0.0021	0.0011	0.0042	0.0015	NS
Stage 2	0.0030	0.0008	0.0015	0.0005	NS
Stage 3	0.00043 ^A	0.0004	0.0037 ^B	0.0012	0.04
Ear					
Stage 1	0.0178	0.0034	0.0125	0.0027	NS
Stage 2	0.0101	0.0016	0.0078	0.0016	NS
Stage 3	0.0036	0.0019	0.0049	0.0014	NS
Other body parts					
Stage 1	0.0103	0.0030	0.0073	0.0020	NS
Stage 2	0.0089	0.0013	0.0068	0.0014	NS
Stage 3	0.0040	0.0014	0.0045	0.0015	NS

(Stage 1: 30-60kg; Stage 2: 60-90g; Stage 3: 90-120kg)

Performance



Conclusion

Pigs performed better in the enriched environment
The hiding wall does not satisfy the intended purpose