The use of different straw dispensers in weaned pigs

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Introduction

Pigs should have access to suitable enrichment substrates, to enable manipulation activities. In order to avoid blockage of slurry systems however, small quantities of substrates should be used. The question is however whether these small quantities can prevent the development of abnormal behavior.

Objectives

This study aims to verify the use of straw dispensers filled with fully chopped straw in weaned pigs.

Materials and methods

Animals and housing

A total of 129 Hybrid pigs (9w-12w) housed in pens with slatted floors

Experimental design

Pigs were spread over three groups:
- CONTROL (n = 52; no enrichment)
- TUBE (n = 56; access to a vertical straw dispenser with one dispensing unit)
- RESERVOIR (n = 21; access to a rectangular reservoir with four levers)

Behavioral observations

- Based on a scientific ethogram
- Carried out three days/week in the afternoon
- Each pig was observed individually

Results

Behavior

\begin{figure}
\centering
\includegraphics[width=\textwidth]{biting_behavior.png}
\caption{Biting behavior}
\end{figure}

- Pigs in CONTROL groups showed more ear biting, but pigs in RESERV groups tended to show more tail biting

\begin{table}
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
Behavior & Control & Tube & Reservoir & P-value \\
\hline
Nosing & 0.0180 ± 0.0021 & 0.0130 ± 0.0016 & 0.0400 ± 0.0054 & P < 0.05 \\
Aggressive & 0.0044 ± 0.0010 & 0.0017 ± 0.0005 & 0.0010 ± 0.0007 & P < 0.05 \\
\hline
\end{tabular}
\end{table}

> Pigs in CONTROL groups showed more aggressive behavior

Straw use

\begin{figure}
\centering
\includegraphics[width=\textwidth]{straw_use.png}
\caption{Straw use}
\end{figure}

- Straw use was higher in presence of a reservoir, but also decreased to a larger extent over weeks

Conclusion

Both the vertical tube and the reservoir decreased ear biting and aggressive behavior, but it should be taken into account that the reservoir was tested in only a small number of animals.