

© 2011 Universities Federation for Animal Welfare
The Old School, Brewhouse Hill, Wheathampstead,
Hertfordshire AL4 8AN, UK

Animal Welfare 2011, 20: 641-649
ISSN 0962-7286

Comparison of pig behaviour when given a sequence of enrichment objects or a chain continuously

V Van de Perre*[†], B Driessen^{†‡}, J Van Thielen[‡], G Verbeke[#] and R Geers[†]

[†] KU Leuven, Laboratory for Quality Care in Animal Production, Bijzondere weg 12, B-3360 Lovenjoel, Belgium

[‡] KH Kempen, Kleinhoefstraat 4, B-2440 Geel, Belgium

[#] KU Leuven, Interuniversity Institute for Biostatistics and Statistical Bioinformatics, Kapucijnenvoer 35, B-3000 Leuven, Belgium

* Contact for correspondence and requests for reprints: Vincent.VandePerre@biw.kuleuven.be

Abstract

*Tail biting is a major problem in modern pig (*Sus scrofa*) production and results in a reduction of animal welfare and productive performance. Biting behaviour has been shown to be decreased by the use of enrichment objects. In this study, 108 pigs housed in a room with 12 pens were observed and a sequence of seven different enrichment materials was tested. Gilts and barrows were housed together and received a new enrichment object each week starting from three different points in the fattening period, ie 20, 40 or 70 kg bodyweight. Toy-contact and biting-penmate behaviour were observed during one hour at day of introduction and five days later. A continuous sequence of seven enrichment objects reduced biting-penmate behaviour and the number of wounds compared to providing only a single toy (chain). This study also confirmed that not every object was feasible as an enrichment object for growing pigs. Generally, the highest toy contact was observed together with the highest biting-penmate behaviour. Most toy-contact and biting-penmate behaviour was observed between 20 and 40 kg bodyweight and was decreasing over age. Providing a sequence of toys for the first time induced toy-contact behaviour while reducing biting-penmate behaviour but decreased after applying the same sequence for the second or third time. The presence of a single chain or a sequence of different toys had no effect on growth and feed conversion. The ideal sequence should maintain toy-contact behaviour without competition in order to avoid biting-penmate behaviour and reduced animal welfare.*

Keywords: animal welfare, biting-penmate behaviour, enrichment objects, growth, pig, toy-contact behaviour