

NUTRITIONALLY RELEVANT ENVIRONMENTAL ENRICHMENT TO REDUCE NEGATIVE BEHAVIOUR IN PIGS

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Abstract

Pigs are among the most intelligent and curious farm animals, with a strong natural drive to explore, root, and chew. In modern housing systems, these needs are often restricted, which can lead to boredom, stress, and harmful behaviours such as tail biting or aggression. In the European Union and many other regions, farmers are legally required to provide pigs with enrichment materials. Enrichment improves animal welfare by providing pigs with opportunities to explore and interact. It reduces stress and boredom, allowing pigs to be active, supports natural behaviour such as biting and exploring and prevents undesirable behaviour. Psychological well-being also affects physical health and immunity, which in turn increases productivity; satisfied pigs grow better and have better condition.

There are many ways to enrich pig housing. The most effective options are natural, destructible, and chewable materials, such as straw, hay, or silage. Other materials include wooden blocks, ropes, or chains with objects, balls or toys. Enrichment materials should meet one or more of the following qualities: chewable, investigable, manipulable and edible or feed-like. To be effective, enrichment should be safe, accessible to all pigs in the group, and renewed regularly to prevent boredom. It should also be adapted to different age groups, since piglets, growing pigs, and sows have slightly different needs.

The use of toys should positively affect the welfare and behaviour of pigs and meet the requirements of legislation, while not increasing the complexity of work tasks for staff. In slatted housing systems, suitable methods of environmental enrichment include toys or interactive objects specifically designed for this type of housing, which encourage pig activity and curiosity and do not cause problems related to floor type and manure removal. Based on the above-mentioned properties, a functional prototype of a toy was designed for pigs in the first phase of fattening in slatted housing. It is a compact toy made of natural materials that can be hung in the pen. The toy is explorable, chewable, olfactory attractive and edible. Its use should increase pig welfare, enable the expression of natural behaviour and simultaneously supplement animal nutrition.

Key words: Pig behaviour; environmental enrichment; welfare; aggression; nutrition