

Technical rooting possibility for fattening pigs in strawless keeping systems

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Abstract

In the given work a technical rooting possibility for fattening pigs in strawless keeping systems has been developed, built and tested. This rooting possibility is given by using rooting cones. Several rooting cones cover trough with the pigs' food, which must be exposed by the active foraging behaviour of the pigs.

The rooting cones consist of three balls made of polyurethane of 45° and 55° Shore A material hardness, which flow into each other. The diameter of the balls was about 70 mm, the length of the whole cone was about 290 mm. There was a pull spring cast into each cone, making it movable. The cone can be fixed by a spread dowel on a flat metal with a steel bolt. The dowel was knocked on the open end of the pull spring.

The rooting cones were tested in a stable for fattening pigs for four weeks. These were pigs of mixed sex of Pi * (DE * DL) in three departments. 15 animals formed a controlled group without rooting cones (group1). Another group of 15 pigs was offered rooting cones at the feeding machine (group 2). The number of cones varied from 6 to 15. Furthermore the position of the cones and the diameter of the wire of the pull spring were changed every week. On initiative of the author a third department of 15 pigs was included from the second week on (group 3). Here the cones were fixed on the wall of the department in a vertical position. This method was used for group 2 from the third week on in addition to rooting cones on the feeding machine.

The pigs were observed from 8.30 to 10.30 a.m., from 2.30 to 4.30 p.m. on the first,

second and fifth day of every week. In the first phase of observing the behaviour of all animals was recorded, in the second phase the behaviour of the pigs at the feeding machines with the help of instantaneous sampling. Here the behaviour of the animals at the rooting cones in general was of special interest.

It turned out that the rooting cones were suitable to be used as toys for pigs from a technical point of view. But there are some restrictions to be mentioned: The pull springs with a diameter of the wire of less than 3.2 mm lost their stability and became unsuitable for being used. There were damages of two of the polyurethane cones caused by gnawing. In the spring food was deposited, which could not be removed by common cleaning methods.

It was noticed that the interest of the pigs in the cones at the feeding machines did not exceed 2%. In contrast to that the animals were more occupied with the cones on the wall - 8% in the first, between 6% and 7% in the second and between 3% and 4% in the fourth week. It became obvious that the pigs preferred the cones on the wall to those at the feeding machine. Different possible explanations for the preference of the cones on the wall have been introduced. On the one hand there was the distance to the feeding machine - so that the pigs could avoid competing for food. Moreover the vertical position made the cones highly movable. In addition to that they were at eyelevel. So it was possible for the pigs to be in a convenient position. Several cones could be moved at the same time, which increased the attraction.

More extensive tests will be necessary to optimize the cone as a toy for pigs, especially as an enrichment of the feeding behaviour.