

Chicory roots can replace castration

Published: Monday 14 April 2008

Roots from the chicory plant reduce boar taint and can make castration of male pigs redundant.



Male pigs that are not castrated can develop boar taint at traditional slaughter weight. The smell, which is pretty unappetising, can be found in the end product. In order to spare the consumer the malodorous experience, farmers routinely castrate male piglets since castrates normally do not develop boar odour.

Since castration is an uncomfortable operation for the pig, scientists have been investigating alternatives. One of the most promising alternatives is feeding pigs roots from the chicory plant.

Studies show that between 5 and 10 percent of non-castrated male pigs develop boar taint. Boar taint is primarily caused by androstenone and, in Danish pigs, primarily skatole. Skatole is formed in the pigs' intestinal flora. The sugar inulin, which is found in chicory roots, inhibits the formation of skatole. Results from studies at the Faculty of Agricultural Sciences, University of Aarhus, show that a mere week's feeding with chicory roots immediately prior to slaughter reduces problems with boar taint. Two weeks of chicory feeding gives an even better result.

The intestinal flora is altered, which also results in fewer intestinal parasites in the pigs. In addition, chicory roots reduce the prevalence of swine dysentery and Lawsonia, which are two serious types of diarrhoeal diseases. In order for chicory to have an inhibitive effect against these diseases, the pigs must be fed with it during the entire period from weaning to slaughter.

The studies were carried out by scientists from the Faculty of Agricultural Sciences in collaboration with scientists from the Faculty of Life Sciences, University of Copenhagen, and the National Food Institute at the Technical University of Denmark.

The first results were published in 2005. Since then, many farmers have shown interest in using chicory in their pig production. However, there is still a need for further research and development of chicory feed. It is also necessary to investigate other natural alternatives to castration. Studies indicate that feeding lupines to the pigs may also reduce boar taint.

Organic farmers have been particularly interested in methods that avoid castration. The studies are part of the organic research programme, which is coordinated by the Danish Research Centre for Organic Food and Farming and financed by the Ministry of Food, Agriculture and Fisheries.

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