

Electronic ear tags for complete automatic identification of pigs from birth to post-slaughter B. Electronic ear tags for complete automatic identification of pigs

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Key words

Electronic ear tags, Electronic Identification, Fattening pigs, Ear tag losses, Dehairing machine

Aim of the study

The aim of this study is to evaluate the manageability of electronic ear tags. To do this the practical application of various ear tag types was tested. The loss rate and functional reliability of electronic and official plastic ear tags were surveyed on both farms and abattoirs in Switzerland.

Material and methods

The manageability of various electronic ear tags and the official plastic tag was evaluated in different farming and production systems. Both standardised (ISO) transponders and those with anti-collision algorithms (AC ear tags) were used. The test animals were identified by an ear tag no later than on being weaned from the mother sow. The performance of the ear tags and their ability to stay in place were tested in the production sequence to the end of the fattening phase as well as before and after dehairing at abattoirs.

Results and significance

The on-farm loss rate of the plastic ear tag was lower than the three electronic ear tags (1.3 % compared with between 2.0 and 5.9 %). Operational reliability of the electronic ear tags was between 98.6 and 99.5 % in the four types of farm investigated.

When evaluating different ear tags in the abattoirs, some of which were not of standard commercial design, both the type of ear tag (ear tag shape and size) and the de-hairing machine greatly influenced the probability of an ear tag being torn off during dehairing. At 25.7 % a traditional ISO ear tag recorded a loss rate two and a half times higher than that of the official plastic ear tag. During tests with four different ear tag shapes the standard round design of hole and pin components inspired the most confidence. In two trials with two and four types of ear tag in five and two abattoirs respectively there were significant differences between the ear tag types and their loss rate.

A tagging system with electronic ear tags for the complete automatic identification of pigs from birth to slaughter is not yet ripe for practical application. The upshot of ear tag losses in the production process and during dehairing in the abattoir was that the proportion of animals for slaughter automatically identifiable until after dehairing turned out to be unacceptably low in some cases. The complete traceability of animals therefore could not be guaranteed.

Publications, posters and presentations

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Project 1.06.08

Project duration July 2006 - December 2009