CIHEAM
Options Méditerranéennes

Permanent electronic identification of Alentejano swine breed animals

Tirapicos Nunes J., Paiva J.C., Almeida J.A.

in

Almeida J.A. (ed.), Tirapicos Nunes J. (ed.).
Tradition and innovation in Mediterranean pig production

Zaragoza : CIHEAM
Options Méditerranéennes : Série A. Séminaires Méditerranéens; n. 41

2000
pages 301-303

Article available on line / Article disponible en ligne à l'adresse :

---

http://om.ciheam.org/article.php?IDPDF=600156

To cite this article / Pour citer cet article

Tirapicos Nunes J., Paiva J.C., Almeida J.A. **Permanent electronic identification of Alentejano swine breed animals.** In : Almeida J.A. (ed.), Tirapicos Nunes J. (ed.). *Tradition and innovation in Mediterranean pig production .* Zaragoza : CIHEAM, 2000. p. 301-303 (Options Méditerranéennes : Série A. Séminaires Méditerranéens; n. 41)

CIHEAM

http://www.ciheam.org/
http://om.ciheam.org/

Permanent electronic identification of Alentejano swine breed animals

J. Tirapicos Nunes, J.C. Paiva and J.A. Almeida
Universidade de Evora, Ap. 94, 7002-554 Evora, Portugal

SUMMARY - Traditional dry cured products protected with (POD or GI) must be authenticated in order to create confidence at consumers' level. Permanent electronic identifications are the best method of identifying living animals. This work aimed at extending the identification across the whole production and food processing chains, until this product reaches the consumer. Microchips were placed at hock level into 48 piglets at weaning, 24 alentejano pure breed and 24 alentejano crossed with Large-White (LW). Animals were raised outdoors. At ±100 kg of live weight, hogs were slaughtered under standard conditions at Beja slaughterhouse. Refrigerated carcasses were sent to Barrancos town, where they were took to pieces. Sixteen hams from identified pigs were processed according to local tradition (salting circa 7 days, cool post-salting approximately 35 days and natural long dry period). Two transponders were lost during the growing phase of pigs. Twelve months after processing of hams, microchips were still working.

Key words: Permanent identification, microchips, POD, GI.

RESUME - *"Identification électronique permanente des porcs de race Alentejana". La valorisation des produits traditionnels à travers des appellations d'origine (AO) ou indications géographiques de provenance (IGP), doit correspondre à une authenticité afin de les crédibiliser auprès des consommateurs. L'identification électronique permanente est la méthode la plus efficace pour les animaux vivants. Dans ce travail nous avons essayé de prolonger l'identification de l'abattage des animaux jusqu'au consommateur final du produit. Des Microchips ont été placés au niveau du jarret de 48 porcelets après le sevrage, 24 de race alentejana et 24 croisé. Les animaux ont été élevés dans un système semi-extensif et engraissés en stabulation. Les porcs ont été tous abattus dans l'abattoir de Beja selon la méthode courante (électronacrose, saignée verticale, échaudage et épilage). Le découpage a été fait à Barrancos dans l'entreprise Barrancarnes. 16 jambons provenant des porcs identifiés ont été soumis au processus traditionnel d'élaboration du jambon de Barrancos DOP (salage ±7 jours, post-salage) et séchés naturellement. 2 identifications ont été perdues pendant la période d'élevage. Les Microchips sont restés fonctionnels pendant tout l'essai ainsi que 12 mois après le processus de maturation des jambons.*

Mots-clés : *Identification permanente, Microchips, AO, IGP.*

Introduction

Traditional swine production systems in South Europe are based on animal genetic resources that are feed with natural local feedstuffs (i.e., acorns and grass).

Swine produced under oak canopy are traditionally transformed into dry food products such as high quality hams or sausages. Nowadays, these products are protected with Origin Domination Protections or Geographic Provenience Indications and their quality must be presented to consumers in a credible way. Permanent electronic identification would be very useful providing it may resist the whole process, i.e., from weaned piglets to cured hams.

The aims of this research were: (i) to test the efficiency of ISO transponder identifier implanted in rear legs of alentejano piglets raised under a semi-extensive production system and (ii) to test resistance of microchips to slaughter and dry ham cure processes.

Material and methods

Animals

Forty eight piglets, twenty four Alentejano pig breed and twenty four crossed with Alentejano were allocated to this study. Microchips were implanted in both rear legs using a Multi-Shot Injector (1992).

Preparation of the Multi Shot Injector

The injection needle was clean and free of particles, such as hairs from previous injections. This prevents inflammation, harm to the animal, and reduces the chance of the microchip being rejected. (A new needle shall be installed prior to each injection series and tightness and damage to the tip of the needle shall also be checked).

Local of implantation

The anatomic reference is the tuberosity of calacneous: (i) start perforation by pointing the needle of the injector to the beginning of the angle formed by the tuberosity of calcaneous with tibia; and (ii) drive the needle rising parallel with the peroneu. When done, inject the microchip by squeezing the trigger half-way to activate the insertion rod and deposit the transponder. Further squeezing the trigger of the injector will automatically withdraw the needle, leaving the microchip in place.

Asepsis

The insertion area was cleaned with an iodine solution.

Animal management

After the implantation of the microchips animals were reared up to 25-30 kg of weight in an outdoor open field (±2 months). During the growing period the animals were restrained in individual boxes.

Slaughter

Animals were slaughtered in a common slaughterhouse and submitted to a hot bath and an automatic divests of hair.

Ham processing

Microchip implanted legs (16 hams), one leg of each pig was salted and cured according to Barrancos POD specifications. The other leg was dissected and tissues surrounding the transponders were observed. During a 12 month period, the functionality of the transponders kept inside the hams was tested with a Gesreader I reader (1996).

Results and conclusions

Two microchips were lost during this experiment before slaughter. However all the other ones remained functional throughout the whole process that lead to the final product (hams). On the other hand no inflammatory reactions were observed on the dissected legs.

Our results show that in the conditions this experiment was run the permanent electronic identification system we tested is effective, reliable and provides both producers and consumers with the level of insurance they require.

Acknowledgements

Authors would like to thank to programme PAMAF for the financial support of Project No. 3032 which allowed them to run up this experiment and express their gratitude to the Professor A. Murilhas for his help on English version revision.

References

Gesreader I and II (1996). *User's Manual, v. 1.01*. Gesimpex.

Multi Shot Injector (1992). *User Manual*. Texas Instruments Registration and Identification System.