Identification Tools and Technologies for Pigs

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Ear Notch Systems
Different System,
Easily confused with previous system
North American Ear Notch System

Right Ear

Left Ear
Range of numbers restricted anyway

My name is 161-1
Conclusion, Ear Notch Systems

- Ear notch systems are easy applicable
- Ear notch systems are relatively safe
- Capacity of ear notch systems alone is too small for traceability systems
- Combination with premises identification and movement records will provide traceability
Tattooing of pigs
Ear Tattoo plier
Ear Tattoo Procedure

- Clean the inside of the ear first
- Drive the tattoo needles deep into the ear
- Avoid where possible, dark skin, hair, cords or ribs in the ear
- Wipe off any blood
- Apply immediately plenty of ink on the ear surface
- Rub it in well with an old toothbrush.
- Get ink well into holes, so after healing the ink stain is visible.
Ear Tattoo in theory

- Age at application
- Proportional growth ??
- Skin colour
- Fur, density and colour
- Avoid veins, cords and ribs
- Fading of ink
Conclusion, Ear Tattoo

- Ear tattoos with six positions (as shown) may identify individually millions of pigs.
- In Australian test readability was:
  - < 56% eight weeks after application
  - < 40% at slaughter
- Readability problems may disqualify ear tattoos as identification tool.
Tattoo Slaps on Pigs Body
Tattoo Slap Marks
Conclusion, Slap Tattoo

- Slap mark tattoos may be difficult to read
- Australian evaluation: 72 – 85 % readable
- Reading difficult
  - improper application
  - ink faded
  - dark skin
  - dark or dense fur
  - pig dirty
Tattoo Slap Marking

- Tattoo slap marks often used to identify holding of origin
- 6 position codes provide millions of codes if some positions are alphanumerical
- Identification of farm of origin and movement records proved sufficient for controlling swine fever in EU
- Combination of tattoo slap and ear notches can provide low cost individual unique identification if tattoos are readable
Ear Tags

- Use high quality tags for permanent identification
- Lost eartag -> lost identity
- Tamperproof
- Locking mechanism
- Print quality
- Proper size
Conclusion, Visual Plastic Ear Tags

- Loss rate is the big issue with ear tags
- Loss rates for conventional quality ear tags recorded at 2–4 % during pigs lifetime
- Loss rate depends on housing systems
- Loss rate increases if animals are moved or regrouped
- Loss rate during slaughtering 3–4 %
Conclusion, Visual Plastic Ear Tags

- Easy application
- Premises code - Internationally unique animal ID-code
- Two identical ear tags or combination with other identification method
- Temporary tag or permanent tag
- High permance tags as a key factor
- Look for independent international quality tests of ear tags
Electronic Ear Tag
Common issues, injected transponders

- No visual identification except in combination
- Visual indication of injected transponder
- Trained people to do injection
- Test before and after injection
- All transponder must be removed after slaughter
- At the speed of the slaughter line
Injection Sites on Pigs Body

- Ear base
- Ciliary arch
- Armpit
- Cane
- Dewclaw
Injection of Transponder at Ear Base
Losses evolution according injection position

Ciliary's area
Shinbone
Armpit
Ear base

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Injection af transponder into abdominal captivity (Intraperitoneal Transponder)
Intraperitoneal Transponder found after Slaughter
Conclusion Transponders

- Subcutaneous injected transponders not recommended because of loss rates.
- Intraperitoneally injected transponders provide very high traceability even after slaughter.
- Identification quicker with electronic devices.
- Less reading errors ("read" or "not read").
- EID enables automatic recording and reporting to traceability database and automated management.
Recommendations, Transponders

- ISO 11784 and 11785 are the international standards on transponders for animal identification
- Low frequency type (134.2 Khz)
- Signals penetrates water and body tissue
- Relatively short reading distances
- Individual handling of animals
- ICAR is Registration Authority of ISO
- All approved transponders can be seen on ICAR website.
Thank you for your attention

Please visit the ICAR poster presentation in the exhibition area.

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