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Barcode: towards an ICAR recommendation

36th ICAR Session June, 16-20th 2008, Niagara Falls

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Introduction

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EU Guideline 88/407 *ANNEX A* CHAPTER II, 1, vii

Each individual dose of semen is clearly marked in such a way that the

- **date of collection** of the semen,
- the **breed**
- the **identification of the donor animal**
- the **approval number of the centre**

can be readily established; each Member State shall communicate to the Commission and other Member States the characteristics and form of the marking used in its territory.

→ Barcode cannot replace the visible information

→ There is limited space on the straw

→ the "official" information is not sufficient for research purpose / quality control

→ Collection dates are often not recorded in the field

→ The printed information is not suitable for automatic reading

Goals

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Identifying semen straws with barcode

- saves time in the field by automatic reading
- reduces mistakes, with regard to the further use of the data (e.g. breeding purposes)
- Improves traceability by reliable batch identification (sanitary aspects, quality control, research)
- Fastens business processes (invoices, etc)

→ most advantages arise for companies offering insemination services with employed technicians

Solution: Criteria for a harmonized barcode

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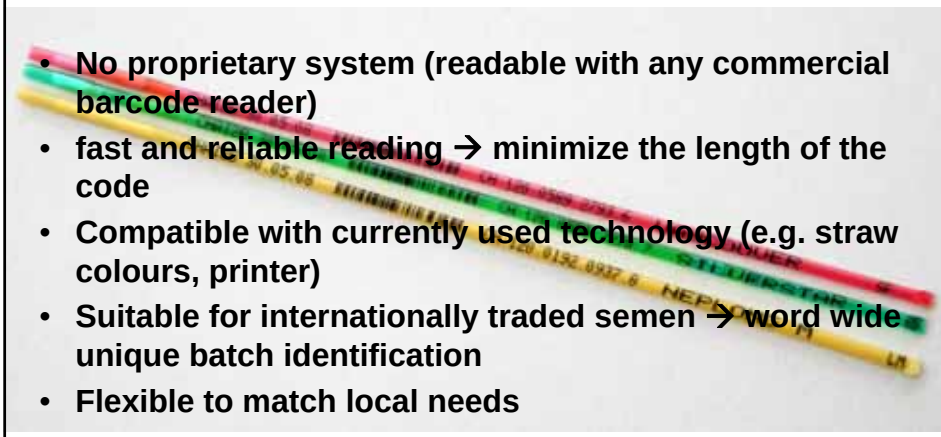

- No proprietary system (readable with any commercial barcode reader)
- fast and reliable reading → minimize the length of the code
- Compatible with currently used technology (e.g. straw colours, printer)
- Suitable for internationally traded semen → word wide unique batch identification
- Flexible to match local needs

Solution: proposed system

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- **Code 128C: commercial readers are available, provides all ASCII characters, control number included**
- **As short as possible (especially for field use)**
- **Use only straws tested for barcode reading (esp. green colours)**
- **Worldwide unique identification semen batches by**
  - **unique identification of the semen collection centres (SCC) (ICAR in collaboration with NAAB)**
  - **unique batch identification within SCC (either by bull / collection date / ejac. nr or serial batch number)**
- **Publish the coded information by company on an Internet website (Done by ICAR)**

→ **creates the possibility of individual, flexible solutions**
→ **batch numbers require cross references**

QualiVet-Group

Barcode solutions

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- **The solution proposed by the European AI Vets** **10 digits**

  196 08 xxxxx
  NAAB–stud code / year / batch no. within stud (AIC)

- **The Select Sires system** **17 digits**

  NNN bb yyyyy dddddd z
  stud code / breed / bull / freeze code / misc

- **The French System** **13 digits**

  NNN 12345 dddd x
  stud code / bull / date (no. of days since 1/1/02) / ejaculate no. on that day

Reading of Barcodes

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Example 1: 1960890017

- **The first 3 digits stand for the stud: 196**
- **Go to the ICAR web-site and look for the interpretation of the rest**
- **Cross reference with shipping papers**
- **If reasonable, adapt your business software for automatic interpretation**

Example 2: 007HO37080711237

- **The first 3 digits stand for the stud: 007**
- **Go to the ICAR web-site and look for the interpretation of the rest**
- **Data can be used without cross reference**

→ICAR Recommendation:

- **Draft available**
- **Comments are welcome: laurent.journaux@unceia.fr**
- **Submission to ICAR Board in 2009**