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# Report of the ICAR Subcommittee on Animal Identification

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The Sub-Committee had the busiest years ever of testing of electronic identification devices. Manufacturers started requesting performance testing of transponders. Test protocols have been available for years but no one used them. When the requests started coming in test configurations had to be built up which occurred in the middle of the transition process from ICAR test protocol into ISO standard. Results from the first performance tests should be available shortly.

The Sub-Committee started performance tests of plastic ear tags. The first round of test has now reached the field test phase and the second test round is about to start. The test document has been reviewed and a test protocol for plastic ear tags with electronic identification has been developed.

These years in many countries the responsibility for identification and registration of animals and animal movements moves from breeders organisation to competent authorities due to the demand for traceability. For this reason the Sub-Committee is now increasingly active in offering experience and expertise to national and regional authorities.

At the ICAR session in Kuopio, Finland, 2006, Dr. Reinhard Pauw, Germany, who was then chairman, left the subcommittee. Dr. Pauw had served as chairman of the Sub-Committee for more than 10 years and had to stop due to the ICAR bylaws. Current Sub-Committee members want to thank Dr. Pauw for his leadership and for his contribution to bringing the ICAR test and approval programme to its current high level. Dr. Pauw received ICAR's Distinguished Service Award

The current Sub-Committee members are:

- Folkert Onken, Germany (since 2007).
- Henry Richardson, UK.
- Jay Mattison, USA.
- Louise Marguin, France.
- Ole Klejs Hansen, Denmark (Chairman).
- Peter Bailey, Australia.

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## Summary

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## Introduction

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According to its terms of reference the Sub-Committee covers the following subjects related to identification and registration:

- Preparation of guidelines for the relevant appendices of the International Agreement on Recording Practices with regard to ID-device testing.
- Stimulation of new developments in and report on new equipment, procedures and methods dealing with:
  - Electronic identification.
  - Other identification devices.
  - Standardised layout of ear tags for individual animals
- Advising the ICAR Board on approval of:
  - Institutes serving as ICAR test-centres
  - Identification devices used in individual animal identification

ICAR's philosophy is to provide tests that can be directly accepted by most authorities and user groups worldwide. This means that the tests must be quite comprehensive covering characteristics that all users want. The adoption of one worldwide main test standard is to the benefit of users, authorities and manufacturers, even if the test might initially be more expensive than individual national tests needed to access markets in different countries. The economies follow when national authorities accept the ICAR standard as an alternative to their own.

## Test of electronic identification devices

2006 and 2007 were the busiest years ever in ICAR's conformance testing of transponders and 2008 is well on its way to also become quite active. After many years of testing and mainly using electronic identification (EID) in pets we are now moving into the phase of using EID in farm animals and in official identification and traceability systems. In EU it was expected that EID of sheep and goat might be mandatory as of January 2008 and manufacturers prepared for that, which may be the reason for the high activity levels in 2006 and 2007.

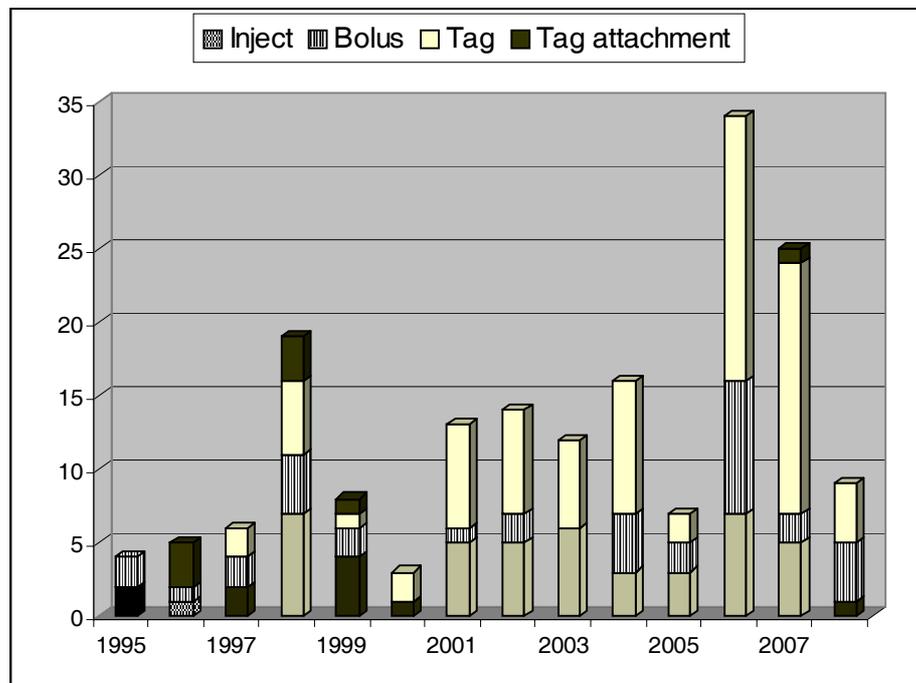


Figure 1. Transponders approved per year.

The conformance test shows whether the transponder works in conformance with ISO standards 11784 and 11785 but it does not provide information about the level of performance. ICAR has for years had protocols for performance testing, but no manufacturers asked for testing until 2007. This again may have been triggered by the expected EU requirements in which performance tests according to the ICAR test procedure are needed for all EID tags to be used in sheep and goats in EU. Here also transceivers (readers) must be conformance tested. ICAR is also active in this field.

As long as the use of EID was voluntary and only for on farm management purposes it might be left to the market to choose tags performing to the level needed. However, when EID becomes part of mandatory and official identification systems there is a need for also testing performance.

Currently ICAR has a list of transponders lining up for performance test. The test has been delayed due to the transition of the ICAR test protocols into an ISO standard, but the first transponders performance tested by ICAR should be available within weeks.

Please find further information about tested products on the ICAR website [www.icar.org](http://www.icar.org)

ICAR is currently working on improving the website with all conformance tested transponders so that users will be able to search products based on several criteria.

In 2004 ICAR published a test protocol for conventional plastic ear tags with or without machine readable (visual) printing. This test protocol was inspired by the comprehensive test programme used in France. Also for plastic ear tags with electronic identification a protocol has been developed and published based on the protocol for conventional tags. These test protocols include:

1. Preliminary assessments.
2. Laboratory test.
3. Preliminary field test (3 months).
4. Extended field test (9 months).

Tags must pass successfully each step before being allowed to enter next step. Preliminary approval may be granted after successfully passing the preliminary field test and full approval after successfully passing the extended field test. Normally the whole test period should be about 18 months.

Test of plastic ear tags is an ICAR activity outside the agreement with ISO. However, ISO standards are used as much as possible in the protocols. This is to incorporate as much technical expertise as possible in the protocols and to support the international acceptance of the ICAR test and approval programme.

The first test round for conventional ear tags was invited in the summer of 2006. Tests started in early 2007 and the tags remaining in the test are now entering the phase of field tests. First preliminary approvals are expected by the end of 2008. Second test round will be invited this summer.

This first round demonstrated the need to define in more detail parts of the preliminary assessments and another few minor adjustments in the test protocol. These elements are included in the proposed new versions of the protocols to be approved at the general assembly this year.

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## Test of plastic ear tags

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## **Test Centres**

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According to the ICAR-ISO agreement ICAR shall set up approval criteria for test centres for testing of EID devices. ICAR must approve all centres complying with the approval criteria and applying to become an ICAR approved test centre. In order to achieve international recognition of the test ICAR requires test centres to be ISO 17025 certified and ISO 17011 audited. This has to be done by third party since ICAR is no certification organisation or audit organisation. On top of those requirements ICAR has set up further criteria for obtaining ICAR approval.

The three current test centres will have to qualify by the same criteria. Current test centres are:

- IMAG test centre in Wageningen, The Netherlands (ICAR test centre for EID since 1995).
- JRC test centre in Ispra, Italy (IDEA project, ICAR test centre since 2002).
- CETIM, Nantes, France (official French ear tag test, ICAR test centre since 2006).

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## **ICAR and ISO**

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In the 90's ICAR established a liaison to ISO as an "organization that makes an effective contribution to the work of the technical committee or subcommittee." Until 2007 ICAR had an informal agreement with ISO on testing and approval of ISO 11784/11785 conforming devices. Since 2007 ICAR has a formal agreement with ISO to be the ISO Registration Authority for the International Standards ISO 11784 and ISO 11785. Tests have to be done in approved test centres and ICAR has to set up approval criteria for such centres.

The Current ICAR test protocols for RFID devices were developed in cooperation with the ISO working group on animal identification (ISO TC23/SC19/WG3) providing technical expertise. The protocols were developed in a ten year period from early 1990's covering

1. Conformance of transponders.
2. Conformance of transceivers (readers).
3. Performance of transponders.
4. Performance of transceivers (readers).

For the last few years these protocols have been in transition to become ISO standard 24631. The transition is purely editorial and the tests will still be the same, which means that previous ICAR approvals will also be valid after the transition of document status. The ICAR test protocols will remain valid until the ISO standard has been formally accepted. The first vote on ISO 24631 closes early July 2008.

The chairman of the ICAR Sub-Committee attends the meetings of ISO's working group on animal identification (TC23/SC19/WG3) and its technical working group.

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## **ICAR and FAO**

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ICAR has a liaison with FAO. In July 2007 the chairman of the ICAR Sub-Committee attended a FAO/OIE workshop in Sri Lanka for South - Eastern Asian countries on identification and traceability. In May 2008 he also attended a FAO workshop in Hungary for Central and East European countries on development of animal identification and recording systems for veterinary surveillance and livestock development.

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OIE (World Organisation for Animal Health) works closely with national veterinary services, whereas ICAR traditionally works closely with breeders organisations. However, there are important fields of mutual interest, such as for instance animal identification, registration and traceability. As a result of the focus on traceability of animals and animal products these issues have in many countries moved from being driven by breeder organisations into being authority driven. It is important that standards and guidelines are in conformance, and for this reason ICAR and OIE will continue to collaborate in fields of mutual interest. ICAR is particularly interested in maintaining and developing cooperation with OIE fields of animal identification and recording and evaluation of health traits of farm animals.

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## ICAR and OIE

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The ICAR Sub-Committee on Animal Identification also offers its experience and expertise to member organisations and to national and regional authorities. This is to benefit both breeders' organisations and authorities. Animal identification, registration and traceability are important fields of mutual interest where standards and regulations should be compliant. For these purposes the Sub-Committee chairman has attended meetings Canada, Germany, Spain and USA and also meetings with EU authorities.

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## Other international activities

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The Sub-Committee had a meeting in Kuopio, Finland, June 2006, and two meetings 2007 in Paris, January and September. These meetings mainly were about reviewing the performance test protocol for conventional plastic ear tags and developing a new test protocol for plastic ear tags with EID. Also the transition from ICAR protocols into an ISO standard on testing EID devices and the consequences of the ICAR-ISO agreement formally making ICAR the Registration Authority of ISO for the standards 11784 and 11785 were important issues. Between meetings the Sub-Committee has been very actively and effectively communicating and working through e-mails.

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## Sub-Committee activities

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