



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

ICAR services in Animal Identification: Guidelines - testing - certification - validation

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The Netherlands



QUICK FACTS ABOUT ICAR

- **INGO** with 120 Members from 60 countries all over the world.
- Active in **farm animal production** sectors:
 - Identification
 - Performance recording
 - Genetic evaluation
- **Services:**
 - Guidelines
 - Certification and evaluation services
 - Knowledge sharing activities
 - Networking

We work with our members to provide global standards for livestock data.

We independently help to guide and secure quality of livestock related products with guidelines and certification.



ICAR'S WORK ON ANIMAL IDENTIFICATION

- Since 1995, ICAR has **independently** lab tested nearly **600 livestock identification devices**.
- Device testing and certification are done according to the **ICAR Guidelines**.
- Certification is granted only to products that meet **strict criteria** according to the ICAR and ISO standards.
- Testing criteria include, among others, design and impact on animal welfare; tamper-proofness; resistance to ageing; accuracy in programming and electronic communication.
- ICAR's aim is to help authorities and farmers select **high quality products for food production systems**.

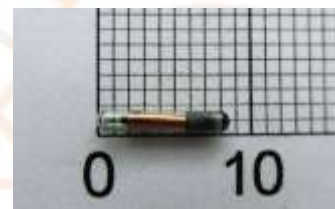
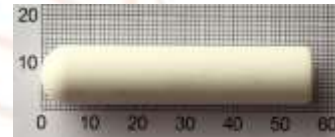
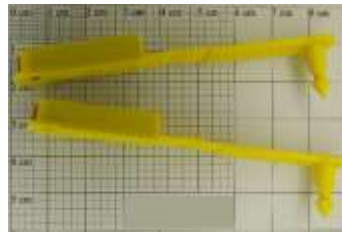
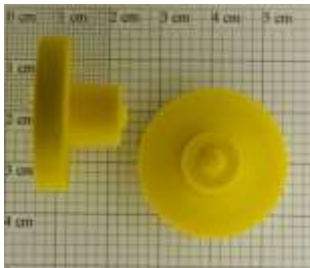


CERTIFICATION OF ID DEVICES – 1

- **Electronic devices:** RFID ear tags, leg tags, tag attachments, ruminal boluses and injectable transponders (for horses and pets).

Conformance test with ISO standards 11784 and 11785 according to ISO standard 24631-1.

- 11784: Transponder code structure for the radio frequency identification of animals
- 11785: Technical concept for the radio frequency identification of animals (communication between transponder & transceiver)



CERTIFICATION OF ID DEVICES – 2

- **Electronic devices:** ICAR offers also the **Performance test** according to standard ISO 24631-3.
 - Not obligatory.
 - Does not lead to a certificate.
 - Provides useful information about the performance e.g. read range of the transponder.



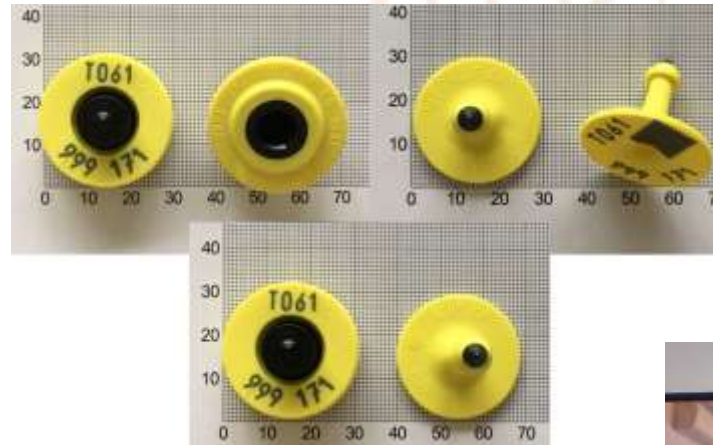
CERTIFICATION OF ID DEVICES – 3

- **Conventional ear tags:** ICAR certifies the **composition and environmental performance** of the ear tags according to ICAR standards.
 - Preliminary Assessment: ear tag design; locking mechanism; application test (axial and transverse test).
 - Laboratory test: material characteristics; harmful substances; acid/alkaline bath treatment; ageing by damp heat and cold; resistance to artificial ageing; abrasive treatment; typography readability; colour contrast change; machine readability (optional); resistance of locking system.

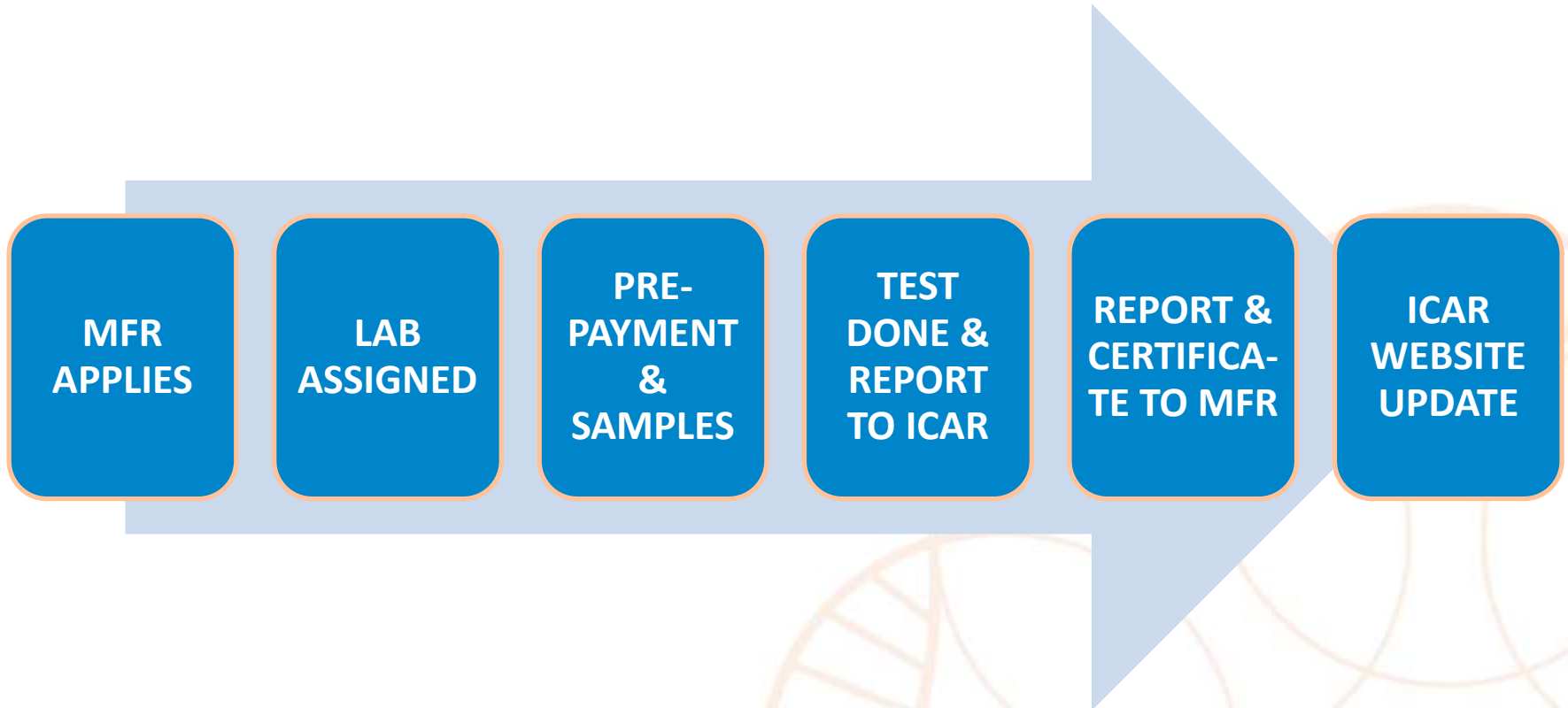


CERTIFICATION OF ID DEVICES – 4

- **Full certification of RFID tags:** RFID tags can be tested and certified for **composition and environmental performance, plus conformance with ISO standards 11784/11785.**
- Preliminary Assessment
- Laboratory test



CERTIFICATION PROCEDURE



- Full information & application forms: see [here](#)



RE-CERTIFICATION OF ID DEVICES

- ICAR Certification lasts for 5 years
- After 5 years, test can be repeated and **certification renewed for another 5 years**. The device maintains its original product/certification code.

Tests applied for re-certification:

- RFID devices: Limited test
- Conventional ear tags: Preliminary assessment



PUBLICATION ON ICAR WEBSITE

- **RFID devices**
 - Currently certified - [link](#) (Devices certified every 5 years by ICAR)
 - Registered - [link](#) (Devices registered for their lifetime)
- **Conventional ear tags [link](#)**

ICAR Certified Devices

- Conventional ear tags
<read more>
- RFID Devices
 - Full certification <read more>
 - Ear tags, Tag attachments, Boluses <read more>
 - Injectable transponder <read more>
- RFID Transceivers
<read more>

ICAR Registry of RFID Devices

- Registered RFID devices
<read more>
- Registered manufacturers – signatories of Code of Conduct
<read more>



VOLUNTARY SAMPLING OF ID DEVICES

- Voluntary service for national **Competent Authorities** (not manufacturers or their agents).
- Quality sampling to ensure that **devices on the market** remain compliant with the appropriate ISO and ICAR test protocols.
- **Does not lead to certification** of the devices.
- **Confidential** test report is shared only with the CA.

Full information [here](#).



NEW SERVICE DEVELOPMENT 2021

FIELD VALIDATION OF IDENTIFICATION DEVICES – 1

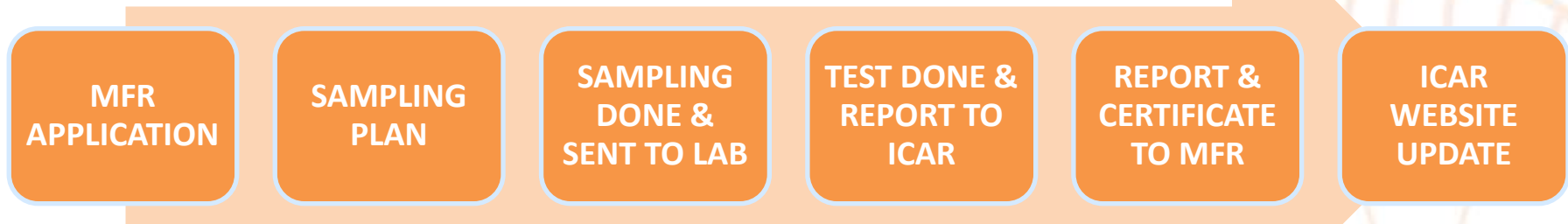
- Service for ICAR-certified **electronic and conventional ear tags**
- Field validation through **sampling**: an organisation will collect ear tags from **market stocks** and submit them to ICAR Test Centres for limited testing of the material and electronic performance.
- **Quality service** to ensure that certified devices remain compliant with the appropriate ISO and ICAR test protocols.
- **Advanced certification** will be awarded after the first field sampling. Then every one/two years based on regular samplings and annual report data.
- **Stakeholders** (CAs, manufacturers, etc) are being consulted in the development process.



NEW SERVICE DEVELOPMENT 2021

FIELD VALIDATION OF IDENTIFICATION DEVICES – 2

- Procedure for obtaining 'Certified and Field Validated' status



- Regular samplings and annual data reporting for renewal.



LEVELS OF ICAR CERTIFICATION FOR IDENTIFICATION DEVICES

	RFID	Conventional
CERTIFICATION (Electronics)	<ul style="list-style-type: none"> ✓ ISO Conformance test ✓ ISO Performance test (optional) 	n/a
CERTIFICATION (Electronics & material)	<ul style="list-style-type: none"> ✓ ISO Conformance test ✓ ICAR environmental test 	<ul style="list-style-type: none"> ✓ ICAR environmental test
CERTIFICATION & VALIDATION	<ul style="list-style-type: none"> ✓ ISO Conformance test ✓ ICAR environmental test ✓ Field validation (under development) 	<ul style="list-style-type: none"> ✓ ICAR environmental test ✓ Field validation (under development)



ICAR GUIDELINES

- **Best practices** on all aspects of animal identification & recording
- 20 Sections **freely available**
- **Section 10** of ICAR Guidelines:
Identification Device Certification
- Includes the test protocols & Certification procedures for all types of tests
- Link to ICAR Guidelines [here](#).

Section 10 - Identification Device Certification



Overview



Procedure 1: Conformance of Transponders



Procedure 2: Granting of Manufacturer Code



Procedure 3: Conformance of Transceivers



Procedure 4: Testing of Conventional Plastic Ear Tags



Procedure 5: Testing of



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Links:

[Animal Identification](#)

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