

Global Perspective of Livestock Identification and Traceability

DATAMARS – THE COMPANY

Planet Datamars

Headquarters ● | Commercial entity ● | Production entity ●

Around
1800
employees

Over
4000
distributors

Ballycastle Selkirk
Dublin Bournemouth
Essen Bedano
Beauné Nitra
Corteolona e Genzone Timisoara
Albacete Oristano

Boston
Kansas City
Mineral Wells
Temple

Beijing
Taipei
Lamphun
Singapore

São Paulo
Porto Alegre
Montevideo
Buenos Aires

Sandown

Brisbane
Gosford

Auckland
Hamilton

Operating in
more than
100
countries

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Business overview by division

Livestock ID

2

- Products for livestock tracking, identification, traceability and disease control.
- Unique ID Systems to improve Livestock management and farm efficiencies



Pet ID

1

- RFID microchips injected in companion animals
- Microchip scanners
- PetLink / Petmaxx: online registry and recovery service for companion animals
- Most pets (mainly cats and dogs)
- US, Europe and Asia Pacific
- Pharma distributors, veterinarians, animal shelters



Textile ID

1

- Covering all industrial laundry scenarios and inventing the laundry RFID tag (LaundryChip™)
- RFID tags, readers, antennas, software, logistics, service and support offerings
- Identify, sort and track items automatically during the laundry process, and also provide inventory management capability at the client's site
- US, Europe and Asia Pacific
- Industrial laundries, textile rentals, healthcare, hospitality



Animal Health Delivery Systems

- Acquisition of Simcro closed in March 2018
- Global leading designer and manufacturer of animal health delivery systems
- Application guns and syringes predominately used for production animals
- Cross-selling opportunity with LID segment
- US, Russia, Australia / NZ
- Large pharma groups, agri-distributors, farm retail store chains



Farm Resources Management

- Acquisition of Tru-Test signed in May 2018
- Designing and manufacturing electronic scales and weighing systems, electronic ID readers and electric fences
- Superdamp™ weighing technology able to capture the weight of a moving animal quickly
- Global footprint
- Large agri-distributors, farm equipment integrators, farm retail store chains



Livestock Identification and Traceability; Standards for Identification

Standards for Identification-ISO & ICAR

- Required standards for identification schemes can vary widely, and can also depend on a number of variables e.g. cost, available resources, timeframe
- Global standards for identification are issued by the International Organisation for Standardisation (ISO) and the International Committee for Animal Recording (ICAR)



Who Is ISO?

- ISO is an independent NGO with a membership of 164 national standards bodies
- Through its members and other stakeholders shared knowledge, ISO creates voluntary, consensus based market relevant International Standards, of which more than 21,000 have been published
- Of those 5.3% (or approximately 1165) are food and agriculture standards
- For animal identification we're interested in 5 of them; 11784/11785, 24631, 14223 and 3166



Who Is ICAR?

- ICAR is an NGO that aims to promote the development of animal identification, along with the performance recording and evaluation of farm animal production
- In 2007 ISO appointed ICAR as the registration authority to register manufacturer codes used in RFID of animals in accordance with ISO 11784/11785
- In the case of animal identification devices, ICAR has administrative procedures in place for testing the conformance and performance of RFID devices in respect to ISO 11784 and ISO 11785, as well as tests for visual identification
- In traceability schemes, when tags pass the most comprehensive testing they receive “Full Certification”. As a standard, this should be the hurdle for supply to be to ensure quality identification which impacts retention, which in turn enables traceability



Livestock Traceability Schemes

At its essence, a traceable livestock identification system requires three core components;



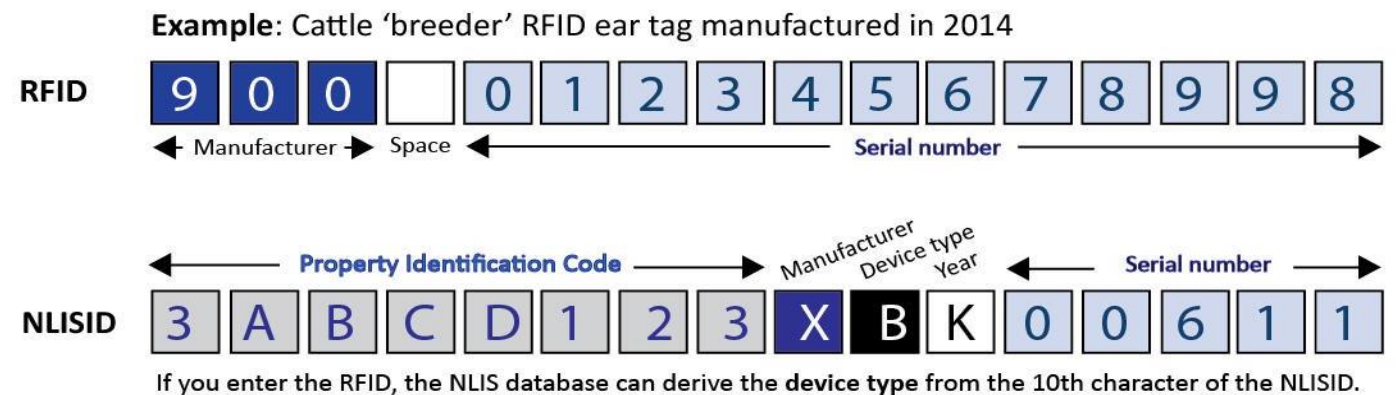
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Unique Identification-RFID and Visual



- Which numbers should we use?
 - ISO country code-managed by Government or registered authority
 - ICAR Manufacturer code
 - Note-in RFID never use 999-this is a test/trial code

- Example; NLIS Australia



Property/ Person Identifier



- How do we link the animal to something or someone?
 - Can be to a person and/or property;
 - Property Address
 - Owner
 - Farm Manager
 - Transporter
 - Stock Agent (Trader)
 - Saleyard
 - Processor
 - Importer/Exporter

- Each exchange requires updating movement data

Database/Information Management



- Required for recording movements and enabling traceability for and of;
 - Movements
 - Ownership
 - Progeny/Breeding
 - Performance data (farm management)
 - Treatment and vaccination/medical information
 - Disease prevention
 - Enables crisis management

The Challenge of Compliance

- Even in developed markets compliance is a challenge, with many considerations as to why people would or wouldn't comply;
 - May be exposing themselves to liability
 - Enables market access
 - Cost
 - Incentive payments
 - Penalty deductions
 - Fear-impact on neighbours/industry
 - Cumbersome-takes time to implement
 - Higher value product

Some Examples of Identification Schemes Around The World

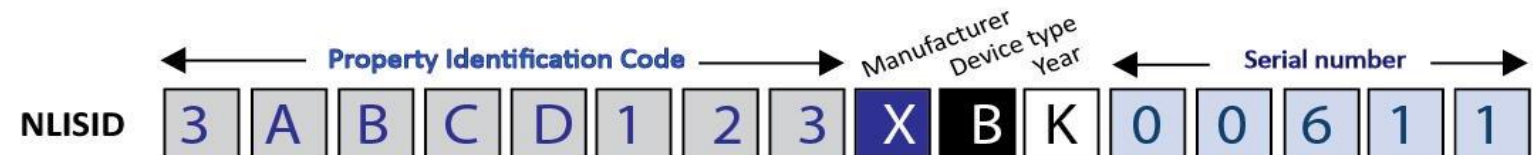
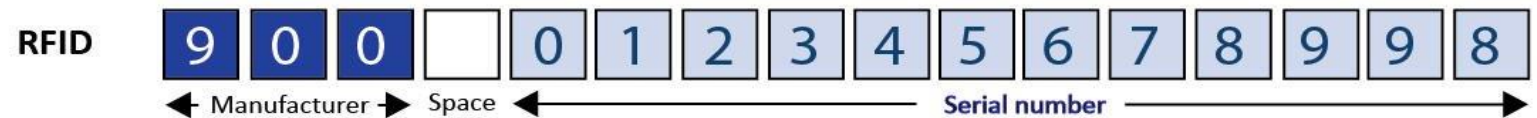


Australia-National Livestock Identification Scheme (NLIS)

- The NLIS combines three elements to enable traceability;
 - electronic ear tag-ISO 11784 compliant
 - property identification code
 - a web-accessible database to store and correlate movement data and associated details-managed by NLIS but accessible to animal owners
- Tags require accreditation-3yr trial
- Varies by state



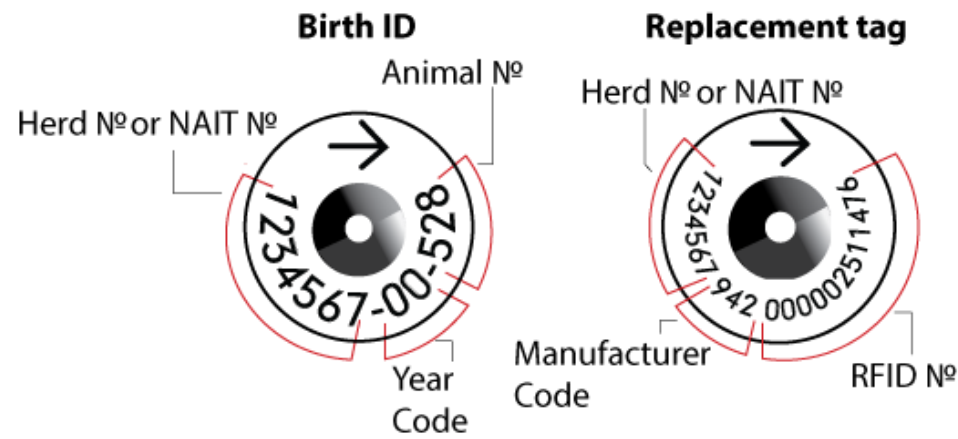
Example: Cattle 'breeder' RFID ear tag manufactured in 2014



If you enter the RFID, the NLIS database can derive the **device type** from the 10th character of the NLISID.

New Zealand-National Animal Identification & Tracing (NAIT)

- Similar to Australia;
 - ISO 11784 compliant RFID tag required
 - Registered NAIT number to owner or person in charge of farm
 - Web-accessible database to store and correlate movement data and associated details-managed by NAIT but accessible to animal owners
- 3yr trial for tag approval



Canada

- Canadian Cattle Identification Agency (CCIA) approved RFID tag, ISO 11784 compliant. Country coded
- Tags approved by Canadian Food Inspection Agency-1yr trial and ICAR tests
- Based on same pillars as NZ/AU with premises and animal identification, coupled with animal movement tracking
- Movements tracked through central database (Canadian Livestock Tracking System-CLTS) managed by the CCIA with numbers issued by them to ensure uniqueness

Canadian
Cattle
Identification
Agency
Approved by the CCIA



Traditional Rivet

Japan

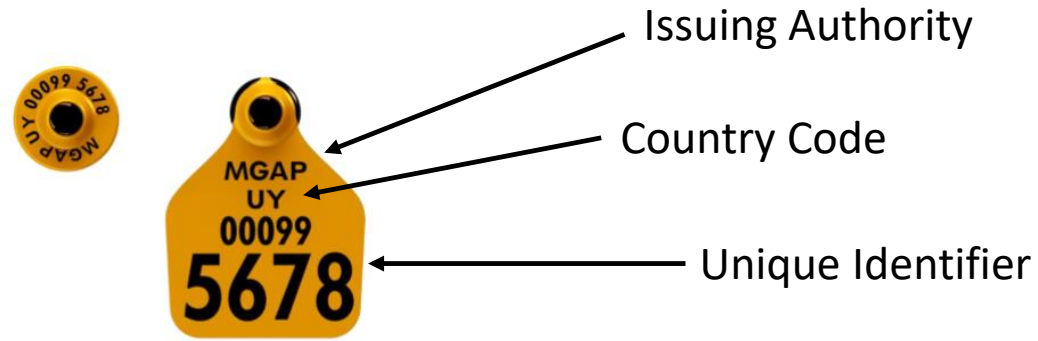
- Tender run once per year
- 3 million tags purchased by the government
- Run by NLBC in conjunction with LIAJ
- Not RFID but requires ICAR approved visual tags with 10 digit 128 barcode, standardised by ISO 15417
- Visual tags printed with;
 - Country code
 - Issuing Agency
 - Barcode
 - Unique identifier number



South America

- Uruguay

- RFID and visual tag
- RFID 11784 compliant



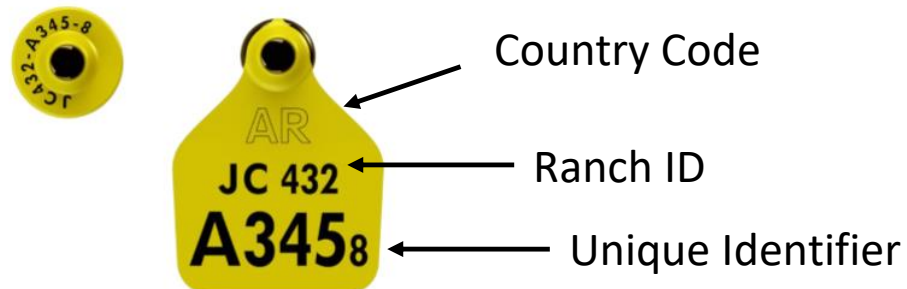
- Chile

- RFID and visual tag
- RFID 11784 compliant



- Argentina

- RFID and visual tag
- RFID 11784 compliant



South America Ctd...

- Paraguay

- Visual tags with 10 digit 128 barcode ISO 15417 compliant
- Code includes; animal ID, livestock owner, ranch



- Brazil

- RFID ISO 11784 compliant with visual tags 128 barcode ISO 15417 compliant
- Code includes; animal ID, country code, state
- Printed with issuing agency SISBOV



European Union

- Visual tag required with varying code length
- The first 2 characters are the member state where the animal is first identified
- The characters following the country code must be numeric and not exceed 12 digits



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European schemes for bovine :

Country	Country code (3166)			Length of the individual number
	alpha	numeric		
Austria	AT	040	+	9
Belgium	BE	056	+	9
Bulgaria	BG	100	+	8
Cyprus	CY	196	+	9
Czech Republic	CZ	203	+	9
Denmark	DK	208	+	11
Estonia	EE	233	+	10
Finland	FI	246	+	9
France	FR	250	+	10
Germany	DE	276	+	10
Greece	EL	300	+	12
Hungary	HU	348	+	10
Ireland	IE	372	+	12
Italia	IT	380	+	12
Latvia	LV	428	+	12
Lithuania	LT	440	+	8
Luxembourg	LU	442	+	9
Malta	MT	470	+	7
Netherlands	NL	528	+	9
Poland	PL	616	+	12
Portugal	PT	620	+	9
Romania	RO	642	+	12
Slovakia	SK	703	+	9
Slovenia	SI	705	+	8
Spain	ES	724	+	12
Sweden	SE	752	+	11
United Kingdom	UK	826	+	12

THANK YOU

If you have any questions please don't hesitate to contact me:
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