

National Beef Assurance Division

Irish Bovine Animal Identification Tracing System and Computerised Database (CMMS)

1. Background

Ireland has operated an animal identification and tracing system for cattle since the 1950s based on tagging of each animal's ear with a uniquely numbered tag and accompanying cattle identity cards. Food scares during the 1990's prompted consumer demands for improved mechanisms for tracing cattle and for credible assurances about the safety of food, particularly beef. The main demand was for the creation of a central database, which would contain comprehensive details of the origin, identity and location of cattle.

To address this demand, at EU level Council Regulation 820/97 (later replaced by Regulation 1760/2000) established a common EU framework of rules for bovine animal identification and tracing and labelling of beef. The EU rules identified four pillars of identification for bovine animals, viz, eartags, identity cards, on-farm herd registers and computerised databases containing full information on animal identity and location. The Irish computerised database has been fully operational since 1 January 2000.

At national level, the National Beef Assurance Scheme Act, 2000 provided for the further development of the animal identification and tracing system, including the use of the system to verify the origin, identity and life history of cattle before they entered the food chain.

2. Irish Animal Identification and Tracing System

The Irish bovine animal identification and tracing system has the following main elements, viz.,

Bovine Tagging

Cattle Identity Cards/Passports

On-farm Herd Register

Calf Birth Registration

Computerised Cattle Movement Monitoring System (CMMS)

Details of the various elements are as follows:-

All Irish bovine animals are tagged at birth by the insertion of a yellow plastic tag in each ear. This tag contains a unique identification number. All animals presented at livestock marts, meat plants etc. must bear official ear tags.

The herd owner or representative is obliged to register the birth of each bovine animal by completion of a National Calf Birth Registration form. This form is sent freepost to the National Calf Birth Registration Centre where the data is entered onto a central database.

On receipt of the Calf Birth Registration Form, the National Calf Birth Registration Centre issues a National Bovine Administrative Document and Cattle Identity Card/Passport in respect of the animal registered. This document records details of disease testing, premia entitlements and sales. Since 1 January 1998, owners, keepers and animal movements are also recorded on the document. It must be presented for verification each time an animal is moved.

The Herd Register is the on-farm record of the cattle in each herd. All herdowners are obliged to record the full details (eartag number, date of birth, breed/colour and sex) of all cattle born on the holding and moved into or out of the holding and any on-farm deaths. The destination of all cattle moving out of the herd and source of all cattle moving into the herd must also be recorded in the herd register.

3. Computerised Database

The computerised database is made up of the following main elements:-

Calf Birth Registration

Cattle Movement Monitoring System

4. Calf Birth Registration

The Calf Birth Registration System is operational since 1996. As from that time, all calf births are registered on a central national database. The database holds the following information on the origin and identity of each animal:-

- eartag number,
- sex,
- breed,
- date of birth,
- herd of origin,
- eartag number of dam.

5. Cattle Movement Monitoring System (CMMS)

During 1997, work commenced on the development of the computerised Cattle Movement Monitoring System (CMMS). The system captures all movements of cattle onto a central database in the Department of Agriculture and Food. The CMMS system was phased in with effect from September 1998 and captures all data on births, movements, deaths and disposals since 1 January 2000. In the development of CMMS, maximum use was made of electronic recording mechanisms. Computer equipment linked to the central database was installed at livestock markets, meat plants and live export points to record electronically all movements of cattle to and from these premises. In the case of private sales, the movements are recorded by the Department's Cattle Movement Notification Agency on the basis of notifications from farmers and subsequently loaded onto the central database.

5.1 CMMS at Livestock Markets

On each sale day the mart records all movements of cattle through its premises. This data is transmitted electronically to the central database on completion of each sale.

5.2 CMMS - Private Sales

When CMMS was first introduced, farmers make a written notification each time they bought or sold animals privately. These notifications were sent to the Department's Cattle Movement Notification Agency where they were processed and loaded onto the central database. A permitting system was introduced in May 2001 during the Foot and Mouth crisis. Under this system, farmers submit an application to the Cattle Movement Notification Agency and the animals are cleared against the database prior to authorisation of the movement being issued. The movement is recorded on the central database following confirmation of the move by the purchaser. Arrangements are now being put in place to provide for the retention of the permitting system in respect of all private sales. Certain movements will be exempted, however, from the

pre-clearance arrangements, notably emergency calf replacements, emergency movements generally and onward sales by registered cattle dealers.

5.3 CMMS at Meat Plants

CMMS has two functions at meat plants. The first is to record the movement of the animal into the plant. The second is to check the animal details against the CMMS database in order to verify the origin, identity and life history of the animal against the database before the animal proceeds for slaughter.

5.4 CMMS at Live Export Points

The CMMS system for live exports is similar to that for meat plants. The movement of the animal into the export lairage is recorded and the CMMS database is interrogated to verify the origin, identity and life history of the animals prior to acceptance for export. Additionally, the export destination is recorded.

5.5 CMMS at local authority licensed abattoirs

The CMMS system for local authority licensed abattoirs is also similar to that for meat plants. However because of the small size and low throughput of these plants, they are not linked on-line to the central mainframe. Instead the CMMS clearance checks are conducted by the District Veterinary Offices of the Department based on written notifications of intention to slaughter sent by fax by the abattoirs.

5.6 Validation Procedures and Monitoring of Data

Validation procedures have been built into CMMS such that only valid data is accepted onto the database and errors and irregularities are flagged. Monitoring procedures are in place to ensure that the information transmitted to CMMS is complete and accurate and that errors and irregularities are followed up. In addition, a number of projects have been undertaken to enhance the system and improve its functionality for use as a tool for tracing animals and to support livestock premia payments. In 2000, a project was undertaken to exchange all hand-written cattle identity cards issued prior to 1996 for pre-printed bar-coded passports and to record the animal details onto the central database. A herd reconciliation exercise was conducted in 2001 to confirm the extent of the cattle population and to determine the location of these animals in a particular herd on 31 December 2000. In 2002, a project was undertaken to replace all brass tags issued to older animals prior to 1996 with double plastic tags bearing the same identification number.

5.7 Use of Computerised Database

The primary purpose of the computerised database is to provide a comprehensive record tracing the origin, identity and life history of Irish cattle before they enter the food chain. However, the extent of data now available on the system allows it to be used for other applications. In particular, the database is being used to assist in the

establishment of eligibility for and the payment of EU premia. It is also used to provide statistical analysis in relation to cattle production and breeding.

6. Development of an Animal Movement System (AMS)

A new project has been initiated to progress the development of an Animal Movement System (AMS). The new system will replace the current bovine animal computerised database as well as incorporating the requirements for sheep and pigs. The AMS, which will be based on leading edge internet-based technology, will allow farmers to fulfil their notification obligations and provide access to their herd details on-line. The AMS project is a major undertaking and will take a number of years to be completed

NBAS Division
Department of Agriculture and Food
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National Beef Assurance Scheme

Background

Following the BSE crisis in 1996, measures were adopted to tighten up the conditions of production and processing of cattle and beef in Ireland and to provide assurances to consumers and buyers as to the safety of Irish cattle and beef. Notwithstanding this, it was considered that further measures were necessary to allay consumer concerns and to safeguard markets at home and abroad for Irish beef and beef products.

Accordingly, the National Beef Assurance Scheme Act, 2000 providing for the implementation of a National Beef Assurance Scheme was enacted into national law.

National Beef Assurance Scheme

The purpose of the Scheme is to provide additional guarantees about the safety of Irish cattle and beef by:

- the development of common high standards of production and processing,
- the enforcement of these standards through a process of registration, inspection and approval, and
- the enhancement of the animal identification and tracing system.

Scope of the Scheme

The Scheme applies to all persons engaged in the primary production and processing of cattle and beef (farmers, marts or assembly centres, dealers, live exporters, slaughterhouses, meat processors and bovine animal feed manufacturers). The Scheme also introduces special measures for food businesses regarding the supply of primary product to these premises. The combination of the measures introduced under the National Beef Assurance Scheme and the legislative requirements already in force in relation to food hygiene will provide assurances in relation to cattle and beef across the entire food chain.

Standards of Production and Processing

Under the Act, only persons meeting the prescribed standards will be approved to participate in the cattle, beef and feedingstuffs industry. These standards, which are set out in the Second Schedule of the Act, are already contained in existing legislation for the most part. However, there is also provision under the Act for the making of regulations to address gaps in this legislation e.g. tampering with or falsification of ear-tags and animal identity cards/passports.

Registration and Approval Process

The Act provides for the mandatory inspection, approval and registration of all participants. As it was envisaged that it would take some time to complete this process, the Act provided for transitional measures under which all participants are deemed to be provisionally approved until they have been either granted or refused approval by the Minister. Following detailed discussions over a long period of time, arrangements were put in place to commence implementation of this aspect of the Scheme with the inspection and approval of farms with the annual disease test of herds. However, only a small number of inspections actually took place mainly because the Union representing veterinarians refused to co-operate unless they were paid centrally for the cost of the inspections. Discussions are continuing to resolve this impasse.

Animal Identification and Tracing

A comprehensive system of animal identification is already in place for Irish cattle. All cattle are tagged at birth and when they are moved to a new location they must be accompanied by a cattle identity card or passport. In addition, a computerised database (the Cattle Movement Monitoring System (CMMS)) has been developed that records details of millions of animal movements each year between herds, through marts, small abattoirs, large slaughtering plants and live export points. The National Beef Assurance Scheme provided for the enhancement of the animals identification and tracing system, including the use of the system to validate the origin, and identity of animals before they enter the human food chain. This aspect of the Scheme is already being implemented.

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