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## Cattle identification and registration

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### Summary

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Firstly, the paper briefly summarises the historic development of cattle identification and registration systems in European countries for milk recording, breed registration and genetic improvement.

Secondly, the Council decisions by the European Union (EU) on this topic over the last fifteen years are described. These Council Directives in the 1980s broadly defined the principles to be used in the national systems of Member States. More recent Council Directives with more strict and precise requirements arise because of concerns about animal health diagnosis and control. Following negative animal and human health experiences with cattle in the 1990s, these Council Directives have tended to specify in more detail than before, the precise standards for cattle identification and registration that must be installed by each EU Member State. In addition, the Council Directives provide for fuller integration between EU Member States of both systems and information flow on cattle identification and registration, together with requirements for sanctions when these standards are not applied adequately.

The Commission Regulations for interpreting and implementing the Council Decisions are given. In addition, the dates by which the several stages of development must be implemented, are defined.

It is important to understand that the motivation behind these EU decisions, which are binding upon Member States, is the threat of animal disease and the associated human diseases which are linked to the movement of cattle both within and between EU Member States and also in cattle movements involving the EU and Third Countries.

It may be noted that the Council Directives and the Commission Regulations for cattle identification and registration are accompanied by matching decisions for some other species of domestic livestock and also for the identification and movement of beef and beef products involved in trade within and outside the EU. These decisions are not described here where the focus of interest is upon cattle.

Since this paper is for Round Table participants from Central and Eastern European countries (CEECs) who are concerned mainly with milk recording and cattle improvement, the paper addresses some issues which are likely to arise in those countries when seeking to adopt EU standards. Each country is different. Nevertheless, in each there is a well established and effective cattle identification and herd registration system used on a sub-set of the national cattle population which has been developed over many years on a local, regional or national level and which usually serves the cattle breeders, milk recording members, artificial breeding organisations and in most cases, also the Ministry of Agriculture. In some cases, this breeders' animal identification system is used for animal health and movement control purposes. In other countries there may be a separate system for animal health. The paper seeks to address the principles which will be involved in rationalising the national cattle identification and herd registration system in CEE countries, into one which meets EU standards. Individual answers are likely to be needed in each country.

## **Historic Background**

Historically, in most European countries the first cattle identification systems were developed for the purpose of milk recording and pedigree registration. Such systems generally served only a sub-set of the national cattle population whose owners were interested in improved management, sales of breeding animals and genetic improvement. Often, but not always, the same animal identity number was used for these three purposes, though historically in some countries a cow might have had separate numbers for each of these purposes: milk recording, ancestry recording and genetic improvement by artificial breeding.

European countries developed and maintained their own national and sub-national systems for the identification of their cattle. While these systems were based upon common principles, operationally they differed both in the type of mark used upon the individual animal, in the numbering system and also in the way the data was created, transmitted, stored and accessed. In some countries, identification systems varied in different areas of the country and sometimes varied according to the breed, type or class of cattle. Quite commonly there have been several systems within a country, each of which has been designed over long periods of time for different specific purposes. It may be recalled that nearly all these systems were established originally with hand written records and printed herd books. In the last forty years, milk recording, animal identification and herd registry data have been handled electronically. Considerable experience has been built up in these areas, although again it has to be emphasised that, although milk recording standards have been agreed internationally through the activities of ICAR, each member has established its own unique system of data handling, storage and access. CEE countries which are now members of ICAR, have only joined in relatively recent years and some CEE countries are not yet members.

In recent decades, European countries have increasingly wished to identify all their cattle individually and not only those which were milk recorded or registered in a pedigree herd book. This wish to identify all cattle in a country has generally been stimulated by animal health concerns such as the national plans to eradicate certain animal diseases, like tuberculosis and brucellosis. To ensure that all cattle are identified, governments have often introduced new systems. Sometimes these have used the existing milk recording ID number where it existed, supplemented by a second system for animals not in a milk recording system. In other cases, a new and separate national cattle ID system was introduced for specific animal health control purposes.

So although each European country has been motivated by the same objectives, cattle identification systems have had distinctly national characteristics. Some attempts were made by cattle breeders with interests in international trade in breeding animals to rationalise their cattle ID systems, but even when this was successful, it affected only a small percentage of the national cattle population in a country.

The development of the European Community and its evolution into the European Union with the aim of completing the internal market, put the issue of cattle identification on the agenda in Brussels. Live cattle are involved in intra-community trade and it became clear that they had to be identified in accordance with the requirements of the Community so that the original or transit holding centre or organisation could be traced. Furthermore, there was the need to ensure that cattle entering the Community from third countries be subject to veterinary checks for which an approved system of animal ID was needed.

An early stage was a Council Regulation as long ago as 1981, which established “mutual assistance between the administrative national authorities of the Member States and cooperation between them and the European Commission”. This approach essentially recognised that Member States had differing systems of cattle identification and required them to work together in ensuring that cattle and other species of livestock, were identified when passing from one state to another.

However, in the period 1989 to 1991, the European Community requirements were specified more precisely in several Council Directives to ensure the correct application of legislation on veterinary and zootechnical matters. In particular in 1992, (Council Directive 92/102/EEC), keepers of animals in Member States were required to maintain up-to-date records of the animals on their holdings; persons involved in the commerce of animals had to keep records of their dealings and the competent authorities had to have access to these records on request. This Directive set out the minimum requirements for the identification and registration of animals, defined holdings and livestock keepers as those

responsible for animals, even on a temporary basis and defined the competent authority as the central authority of the Member State responsible for the veterinary checks.

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**Requirements  
in 1992 of  
Council  
Directive  
92/102/EEC on  
the  
Identification  
and  
Registration of  
Animals\***

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1. The competent authority must maintain a national register of holdings.
2. Each keeper to maintain a register with the number of cattle; this is to include an up-to-date record of all births, deaths and movements with dates.
3. Keepers to maintain records of origin, identity and destination of animals.
4. Keepers to provide a document with details of animals when they leave the holding.
5. Identification marks to be applied within thirty (30) days of birth or before animals leave the holding of birth.
6. Marks are not to be changed or replaced without permission from the competent authority.
7. When marks are lost or unreadable a new one shall be applied and the authority informed.
8. The eartag used shall be approved by the national competent authority.
9. The eartag shall have a numeric code of not more than fourteen (14) characters which will indicate the individual and the holding where it was born.
10. Animals entering from third countries shall be given a national mark, unless the animal is imported for slaughter within thirty (30) days.
11. The new number on an imported animal must be linked with the number from the country of origin.

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**Further  
Specific EU  
Council  
Regulations  
for Cattle-1997**

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The 1992 regulations, summarised above for cattle, were an attempt to meet the European Community's requirements for veterinary health and for trade in cattle by using the Member States' own national cattle identification systems. It must be remembered that these national systems varied and in some cases, while covering all cattle in a country, used several systems.

A new and urgent look at the situation was provoked several years ago by an outbreak of Foot and Mouth Disease (FMD) in Italy which was eventually traced to cattle coming into the European Union from a country to the east. However, the route of the infection and the cattle carrying it were difficult to trace. This highlighted the fact that the cattle identification system needed to be strengthened to support the implementation of effective animal health veterinary controls across the whole EU. Further

*\*Note the Council Directive applies to several species of livestock while the following extracts relate to the requirements for cattle.*

pressure was experienced from the realisation that bovine spongiform encephalopathy (BSE or Mad-Cow Disease) in the UK was associated with Creutzfeldt-Jakob Disease (CJD) in humans and the European Union placed a ban upon the export of cattle and beef from the UK.

Thus, as a result of these pressures for more adequate animal health controls in the EU, it was apparent that a more strict and well-defined identification system was needed for cattle in the EU Member States, associated with tighter controls on the movements of cattle into and through the EU Member States. Therefore, on 21 April 1997, the Council issued a new regulation, EC No. 820/97, for the establishment of a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products.

This Council Regulation defines the requirements of cattle identification for the EU as a phased programme for introduction over several years. It is a system which has to be implemented and operated by Member States, but it makes far more and highly specific requirements on the details of the system than previously. In fact, it is an EU cattle identification system which Member States must institute and operate. It replaces the previous approach when different national cattle identification systems were required to adapt to meet EU principles.

This development is extremely important for CEE countries. If a CEE country wishes to enter the EU, then it must change its cattle identification system to fit the EU system. If a CEE country does not contemplate entry to the EU in the foreseeable future, the EU cattle identification system will be important for trade in cattle, beef and beef products.

This Council Regulation recognises that the market in beef and beef products has been destabilised by BSE and seeks to improve the transparency of the conditions for the production and marketing of cattle, beef and beef products. It introduces a more efficient system for the identification and registration of cattle and a labelling system in the beef sector. This paper addresses only cattle identification and registration. It therefore amends the requirements in Council Directive 92/102/EEC of 27 November 1992 which recognises that they have not been entirely satisfactory and need further improvement. It states that excessive demands must not be placed upon the producer in terms of administrative formalities, but at the same time, feasible time limits are needed for implementation of the new requirements.

Each Member State has to create a computerised database to record the identity of animals on all holdings in its territory and the movements of animals with the aim of facilitating animal health requirements.

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**Council  
Regulation EC  
No. 820/97 (21  
April 1997) for  
Establishing a  
System for the  
Identification  
and  
Registration of  
Bovine  
Animals and  
Regarding the  
Labelling of  
Beef and Beef  
Products**

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Each bovine animal must be identified with two eartags, one in each ear and accompanied by a passport determined on a community basis. The eartag must be permanent throughout the animal's life. Animals coming in from third countries are subject to the same identification requirements.

Keepers must maintain an up-to-date register of all animals on their holdings and the register must follow the EU system.

Member States have to bear the cost of introducing and operating these systems. The EU is examining the possibilities of electronic tagging for introduction at a later date.

The specific requirements and characteristics of the new system are:

1. Two eartags for each animal born after 1 January 1998, or intended for intra-community trade after 1 January 1998.
2. Animals born before 1 January 1998 may be identified by the previous EU approved system until 1 September 1998 after which the two tag system is used.
3. Tags to be applied within thirty (30) days of birth.
4. Animals entering the EU from a third country must be similarly identified with two eartags.
5. The original identity of an animal from a third country must be linked in the database with the new EU number.
6. Animals from other Member States retain their original eartag.
7. Eartag numbers shall be allocated to each holding by the Member State according to the requirements of the EU.
8. The computerised database shall be operational by 31 December 1999.
9. Member States will issue animal passports for each animal identified from 1 January 1998 within fourteen (14) days of the notification of its birth or, in the case of an animal entering from a third country, within fourteen (14) days of the notification of an animal arriving.
10. An animal shall be accompanied by its passport when it moves.
11. After death of the animal the passport shall be returned to the competent authority within seven (7) days or, when an animal is slaughtered the operator of the slaughterhouse shall return the passport to the authority.
12. Animals going to third countries shall leave their passports at the point of exit from the EU.
13. All births, deaths and movements to be recorded on the holding register and reported to the computer database within fifteen (15) days and after 1 January 2000 within seven (7) days.

The European Commission has issued Commission Regulations which lay down the detailed rules for the implementation of Council Regulation EC No. 820/97. These cover several important aspects of the new animal identification system for cattle.

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**Commission  
Regulations to  
Interpret the  
Council  
Directive**

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**Commission Regulation EC No 2628/97 of 29 December 1997 -  
Transitional Provisions for the Start-up Period of the System for the  
Identification and Registration of Bovines**

1. Old stocks of eartags may be used until 31 December 1999. Further specific regulations are made regarding the temporary practices in certain Member States.

**Commission Regulation EC No 2629/97 of 29 December 1997 - Eartags,  
Holdings Registers and Passports**

1. The eartags should use the first two positions for the country code together with a maximum of twelve digits for identification of the animal, holding and the competent authority. A bar code may be used.
2. Eartags shall be flexible plastic, tamper proof, easy to read throughout the lifetime of the animal, not re-usable, remain attached without harming the animal and carry only non-removable inscriptions.
3. Each eartag shall consist of a male and a female part, at least 45 mm length for each part and at least 55 mm width for each part and the characters shall be at least 5 mm high.
4. Members States shall tell each other the designs of their eartags.
5. Passports shall carry the identity number of the animal, the signature of the keeper(s), the name of the issuing authority and the date of issue.
6. If any grant is payable, provision must be made for this on the passport.
7. The register shall contain the up-to-date information on the animal, the date of death, details of animals entering and leaving the holding with details of the other holdings and the dates of transfer, the name and signature of the authority which checks the register and the date this is done.

**Commission Regulation EC No 2630/97 of 29 December 1997 - Minimum Levels of Controls to be Carried out for the Identification and Registration of Bovine Animals**

1. The competent authority shall carry out a risk analysis especially relating to all animal and public health considerations, the number of animals on a holding, the annual bovine premium paid compared with the previous year and any significant changes over the last year.
2. If all the animals on a holding cannot be assembled within 48 hours, a sampling system shall be designed.
3. On-the-spot inspections shall be carried out covering at least 10% of all holdings per annum and these shall be based upon the risk analysis taking account of the accuracy of the records in the register and the passports.
4. Member States will make an annual report based upon the Commission model with numbers of holdings, numbers of inspections, numbers of animals inspected, breaches found and sanctions imposed.
5. This regulation shall start from 1 January 1998.

**Commission Regulation EC No 494/98 of 27 February 1998 - Application of Minimum Administrative Sanctions in the Framework of the System for the Identification and Registration of Bovine Animals**

1. If one or more animals do not comply with the provisions, a restriction shall be imposed on movement of all animals to and from that holding.
2. If a keeper cannot prove an animal's identity within two (2) working days, it shall be destroyed without delay under the supervision of the veterinary authorities and without compensation.
3. If requirements are not fully met, a restriction shall be immediately applied to movement of those animals only.
4. If there is a number of animals failing to comply, then a restriction shall be immediately applied to all the animals on the holding.
5. If the keeper does not pay the charges defined to support the system, then passports may be withheld and movement restricted.
6. If there is failure to report birth, death or movement within the required times, then movement of animals shall be restricted.
7. These regulations and sanctions apply as of 1 March 1998.

The regulations given for the identification and registration of bovines apply to each of the fifteen Member States of the EU and will apply to all future Members States. Therefore, instead of having to rush through changes as rapidly as the present fifteen Members States are having to do, prospective EU Member States can take a more thoughtful and planned approach.

One of the major issues facing existing or prospective Member States is the need to reconcile and combine the existing national cattle identification and registration systems already operating for breeding animals and herds, with the EU requirements for a scheme which is mainly designed for diagnosis and control of animal disease.

The problem to be faced in each CEE country is to unite existing cattle identification and registration systems for milk recording and breeding control with a new and enlarged system for all cattle in the country which meets EU requirements for animal health and movement control. In my view, it makes sense to ensure that the new comprehensive system incorporates the existing system or, is at least accessible to it through the database linkages.

This synthesis requires very detailed and thoughtful system analysis of data collection, flow, storage and access. The solution is likely to vary from country to country as the existing systems on cattle population subsets are not uniform. Nevertheless, they often represent the most valuable human resource available within the government in terms of experience, trained staff in the field, in data centres and in the ministries of agriculture.

It is important for all the branches of the government and other bodies which may be associated with existing cattle identification and registration systems, to work together to design a national system which meets the new EU requirements for Member States. Although the main impetus for the new system has its origins in animal health problems, the national veterinary services need to recognise the experience and trained personnel available in the well-established cattle improvement sectors.

The cattle improvement departments and organisations generally collect, hold and use much more data than is needed for the EU standards. Livestock improvement programmes and responsible bodies may have to change the type of mark on the animal to meet the requirements of two eartags. Thus, the database of the livestock improvement systems may have to be modified to hold different sequences of cattle identity numbers. But, it is essential to avoid a policy that completely ignores the existing livestock improvement system of animal identification in favour of installing another duplicate system. Even if a totally new system is found to be the most appropriate, linkages with the large existing databases and former animal identity numbers are important. It seems highly desirable

in the national interest to avoid an attitude that simply installs a new system without seeking the benefit of close cooperation with the existing systems. In fact, failing to bring the two systems into one will violate the EU Council Directive that the administrative burdens on the livestock producer must be minimised.

It is strongly recommended that the leader of the milk recording and livestock improvement sectors of the cattle industries take the initiatives in seeking to combine these approaches rather than seeking to maintain independence while a totally new system is developed.

There is a need for some cost benefit studies and systems analyses to be carried out on a national basis. In many CEE countries, the PHARE and TACIS programmes are able to make technical assistance and financial resources available to ensure that the EU Directives on animal identification and registration are introduced.