Activities and management of milk recording and identification in Lithuania

A. Svitojus[1] & P. Doubravsky[2]

[1]State Enterprise "Pieno Tyrimai" Kaunas
[2]EU-PHARE,
Vilnius, Lithuania

Lithuania, which has deeply rooted traditions of animal breeding and places great emphasis on its development, has thereby considerable potential for the development of the dairy sector. The efforts of animal breeders and growers have played a big role in the dairy sector development but the sector was also influenced a lot by the historical, climatic and economical conditions and other circumstances.

When Lithuania restored its independent statehood and started sweeping economical reforms which brought about radical changes in the farming sector and land ownership relations, animal stock decreased for some time.

Lithuanian farmers always found it necessary to keep productive animals. They were eager to rear good, young stock for renovating or expanding their herds or to sell. We are satisfied with the substantial increase in cow productivity in recent years, considerable improvement in the structure of our cow herds and by assiduous and efficient work of many of the private farmers and agriculture companies.

In order to bring about desired changes, it will be necessary to:

- improve the quality of animals by performing breeding work with pure-breed stock and by using imported genetic potential;
- bring the number of cows under control up to 70-80%;
- improve animal identification methods;
- unit animal growers into associations and cooperatives;
- continue improving the management of animal breeding;
- set priorities in the animal breeding sector.

The dairy herd improvement is impossible without systematic animal recording and milk recording. In 1923, milk-recording was started in Lithuania. A large scale organised cattle breeding system and cattle breeding service were developed in 1958. The system allowed the introduction of milk-recording on a higher scale. The publication of annual reports on milk-recording was renewed in 1959. Since then annual reports are issued and published every year. The development of computer

programmes for the needs of milk-recording database management was started in 1967, when the Lithuanian Institute of Agriculture Economics acquired a large computer, Minsk 22.

The first version of a cattle breeding information system (GVIS) was introduced in 1969. The system was developed by the introduction of a numerous number of animal recording items and by adaptation of the system according to the changes of the cattle breeding management system. Since 1979, the system has been introduced to all milk-recorded dairy herds in Lithuania.

The sub-system for cows, including dairy herd reproduction data analysis, has been developed at the computer centre. In 1988, all cows on collective and State farms were under milk-recording (total 553 000 head).

The GVIS sub-system for pedigree bulls has been developed too. The sub-system was transferred to personal computers and introduced in all regional cattle breeding enterprises (A.I. stations). In 1993, the sub-system for cows was transferred to personal computers and all information was transferred from large computing machines into personal computers in 1994. Since then, we have started to calculate data with Oracle.

The number of milk-recorded cows in agricultural partnerships (agricultural companies) had decreased, but increased on private farms. There are currently (01.10.1997) 130 000 cows under milk recording, i.e. 22% of the total cow population. Sixty-eight thousand or 52% of all milk recorded cows belong to agricultural partnerships and 62 000 or 48% belong to private farmers. Of these 130 000 milk recorded cows, 85 000 (65%), represent Black and White Cattle and 45 000 (35%), Red Cattle.

The year 1996-1997 witnessed an increased milk yield of recorded cows. The average milk yields were 3 604 kg with 4.14% fat and 3.31% protein per cow per year. The milk yields were higher by 288 kg and fat by 0.02%, in comparison with the 1995-1996 milk recording year.

In 1993, reorganisation of the milk laboratories was started in order to improve the national animal breeding system by the establishment of one central accredited milk composition and quality analysis laboratory for cattle breeding purposes instead of the former four regional milk test laboratories at the animal breeding enterprises.

During the period 1993-1997, the State enterprise "Pieno tyrimai" (VÁPT) was equipped with modern laboratory facilities for milk testing as well as auto-refrigerators and containers for transportation of milk samples. The laboratory equipment gives the possibility to test fat, protein, lactose, dry matter, urea, lemon acid, bacterial pollution, added water, cell count and some diseases, very quickly and with high accuracy in one milk sample.

At present, VÁPT is supplied with the most modern equipment for identification of milk samples and milk analysis. Over three million milk analysis are done a year in the laboratory. The main part of the analysis results is used for cattle breeding tasks.

VÁPT is trying to get accreditation which will increase the recognition of the laboratory and results of milk analysis. Also it will present an opportunity to take part in the inter-laboratory check system.

VÁPT is responsible for milk recording on a national level. Milk recording on the individual private farms is carried out by control assistants according to agreements and milk recording in herds belonging to agricultural companies is carried out by cattle breeding advisers of the farms according to agreements with the milk recording service. The control assistants are managed by managers of milk recording services at regional level.

Lithuania's animal production was one of the most developed within the former Soviet Union and now has highest priority in the Government's agricultural policy, since the number of animals has been stabilised. As the self-sufficiency with animal products is very high (namely milk and meat), the development of the export trade is the only possibility to maintain the considerably high production potential. Furthermore, animal breeding is a traditional activity in Lithuania with a high demand potential for exporting breeding animals to the CIS countries. These two facts, together with the necessary control of animal infection diseases, are the main reasons for the implementation of an animal identification system according to EU standards.

There are three main reasons for animal identification in Lithuania: control of animal infection diseases; trade with animals and animal breeding. Currently there is also internal interest to identify the dairy cattle for supporting farmers.

Current animal identification activities in Lithuania have been developed in animal breeding, partially taking into consideration and meeting EU standards. The non-breeding is less developed.

Animal identification is mentioned in two documents: the order of the Ministry of Agriculture and Forestry "On Animal Identification" adopted in 1997 and the Law on Animal Breeding (No. 1-384) adopted in 1994. The Animal Breeding Law affects only breeding animals.

In regard to animal identification, Lithuanian animal production is split into two areas, namely breeding and non-breeding, which are developed in different ways. Whilst the breeding area has a relatively well developed recording and therefore, also identification and registration infrastructure, the non-breeding area, which includes mostly private animal owners, has

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a very low degree of organisation. However, this situation is likely to improve as there are substantial structural changes expected, speeding up the organisational activities in all animal production.

The current identification system, already taking into consideration the EU requirements, has been developed for cattle breeding purposes, including 130 000 cows under milk recording, out of the total number of over one million cattle. This system partially meets EU requirements and includes a numbering system with a unique number for each animal and a central, computerised database.

The implementation of the current system in the cattle breeding area started in 1995 and took into consideration basic requirements of EU standards, namely the directive 92/102 EEC. The main requirement of unique numbering of each animal is met.

The animals in Lithuania have three kinds of identity: eartags, ear tattoos and ear cuttings.

More than 50% of eartags used for breeding cattle identification are of domestic origin. The requirement of non-reusability of eartags was solved until recently in a sub-optimal way. Also the design of surface contacting the ear skin was not fully satisfying. The rest of the eartag market is shared by two other companies who provide tags produced abroad.

The tags contain the following information: LT followed by eight characters; the first two are the code of the region, the next two are a serial number and the last four are the individual number of the animal. The characters are branded and the use of any written characters is not allowed. The lost tags are replaced by tags with the same number, provided by the producer on request of the responsible institution. Imported animals are identified additionally by Lithuanian tags. The tags are ordered by the regional officers of the animal recording service. To date, 86% of the recorded breeding cattle carry the above mentioned tags.

There is a register of animals on large holdings, i.e. former cooperatives and so called agricultural partnerships. In fact, all the partnerships are involved in animal breeding. A considerable number of private farms are also included in the breeding system. They share a comparably low number of animals, which, however, steadily increases.

There are no registers on private farms.

There is no registration system of farms for the purpose of animal identification and a registration system in general.

There is no registration of animal movements. Animals to be slaughtered (for meat production) are not identified and registered.

There are two documents in Lithuania requiring animal identification, they are the order of the Ministry of Agriculture and Forestry "On Animal Identification" adopted in 1997, and the Law on Animal Breeding (No. 1-384) adopted in 1994. Both documents require identification numbers for animals in the territory of Lithuania. However, there is only partial compatibility with the EU Directive 92/102/EEC. The Animal Breeding Law affects only breeding animals.

The Law on Veterinary Activities from 17 December 1991, does not require animal identification at all to meet the tasks mentioned.

Breeding pigs are identified by cut ears, ear tattoos and foreign produced tags, most of them provided by a private company, which also shares the largest part of artificial insemination in Lithuania.