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## **Identification and milk recording of cattle breeding in the Republic of Bulgaria**

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In the Republic of Bulgaria, the identification and milk recording of cattle breeding is controlled by the National Service of Selection and Reproduction in Animal Breeding, which organises the selection and reproduction in cattle breeding with its ten District Services of Selection and Reproduction in Animal Breeding.

Serious genetic losses have been caused due to an unexpected decrease in cattle.

The typical structure of the situation is difficult to manage at the present moment (85% of cattle are located on farms of 1-5 cows per farm). The farmers went into liquidation for their own animals and restricted their own activities.

That is why at the moment the selection, artificial insemination and veterinary servicing are becoming more complicated and are of low effectiveness. Their positive results are the main prerequisite to build the modern cattle breeding based on European unit standards.

With the decreased number of cows in the country, the percentage of the controlled and selected population logically dropped from 23.3% (during 1990 when the actual number of cows was 617 000) to 12.3% (during 1997 when the cow population was 358 000).

Cattle identification is a binding circumstance for precise identification of the correct individual control of the productive trait, correctly organised reproduction and breeding-improved work with the selected animals. In Bulgaria, the basic methods for identification are tattoo, marking with different kinds of tag-marks and cold identification with nitrogen.

Each controlled (selected) animal gets a unique eleven digit number, which is written in the stud book. The first two digits (1-28, the number is equivalent to the twenty-eight regions of the country), represent the region code. The other three digits (from 1 to 999), represent the settlement code. The next two (from 1 to 99), represent the farm code and the last four digits (from 1 to 9999), represent the stock number of the animal.

The tattooing is always made by the assistant controller no later than the fifth day from calving. The tattoo number is usually placed on the inside surface of the ear with a tattoo-pincher.

In Bulgaria, it is accepted to place the stock number of the animal and region code on the right ear and the settlement and farm codes on the left ear.

The cattle identification with eartag marking is not used very often in Bulgaria. The animals can be marked with one tag (on the left ear) or with two tags on both ears. The eleven-batch number is written on the tag with which the cattle are registered in the Stud Book.

Each identified cow's milk recording productivity is registered throughout its utilisation period which is from the first lactation to the moment when the animal is culled. In the milk recording, we keep track of the milk quantity and the percent of fat in the milk. At the end of 1998, the protein quantity was controlled. The firm ADT "PROEKT", Germany, equipped a milk laboratory with KOMBI – FOSS 360 made by FOSS ELECTRONIC, Denmark.

In Bulgaria the National Service of Selection and Reproduction in Animal Breeding (NSSRAB) is the only institution with its ten District Services for Selection and Reproduction in Animal Breeding which control milk production and provide the identification and registration for farmers and breeders.

The National Service of Selection and Reproduction in Animal Breeding accomplished the identification, registration and milk recording with the new instruction for breeding and improved work in the dairy cattle breeding since 1994.

The NSSRAB controllers are the only authorised specialists who implement the instruction. They are the only controllers who can issue the official stud book documents and generalise the information from milk recording for bulletins and catalogues, etc.

The assistant controllers make milk tests monthly over a thirty day period (A-control). Each farm has a graphic for the A-controlling test. The milk productivity test for each dairy cow is taken at 24 hour intervals.

The milk productivity is measured on a scale (BESSMER). The sum total of the milk yield from all milking during the controlling days is equal to the milk yield for the controlling day. Milk yield for the controlling day is average for the controlling period.

The average test for a milk analysis is usually taken after milking and the measured quantity should be as the milk yield for the controlling day.

The milk yield for one lactation is the sum of the milk for all of the controlling periods.

Normal lactation is the milk yield for 305 days from calving.