

HOW TO MANAGE A DATABASE OF A DEVELOPING HERD BOOK

Dr. Leoncio Diz

Holando-Argentino Breeders Association (ACHA)

Abstract

MILK RECORDING SYSTEM

At present Argentina has approximately 2,000,000 dairy cows, of which 534,842 are under the Official Milk Recording System. Although recording of production in Argentina began in 1911, at that time it was the responsibility of the Ministry of Agriculture and Livestock; it was only in 1981, with the passing of Resolution 688, that the state appointed this function to the ACHA due to the significant increase in the number of cows in the system.

There are three national inspectors who cover the different milk-producing areas of the country and whose job it is to ensure that the system, as well as the eight labs for processing samples and the central reference lab (INTI Lácteos – Dairy Industry Technological Research Centre), operate efficiently.

CALF REGISTRATION

In Argentina there is open registration for the Holstein breed. However registration for pedigree animals is managed separately from grade animals. The Sociedad Rural Argentina (SRA – Argentine Rural Society) holds the registry, not only for purebred Holsteins, but for all cattle breeds and for other species of animals. Nonetheless, the SRA's number of annual registrations is low: approximately 7,000 animals are registered including males and females.

On the other hand, through the Official Milk Recording System, the ACHA offers a free registration service, registering approximately 230,000 **females** annually (4,380,000 maximum).

Milk Recording System: past and future

The main milk-producing region in Argentina has an area stretching north to south for 1,300 km and east to west for 800 km. As a result, data had to be collected on a decentralised basis leading to 94 recording centres (mainly non-profit country associations) which visited the stalls each month and send the information onto four regional centres that verified and monitored the data received by our database.

Using this decentralised system ACHA received data relating to 305-day milk-production (milk, fat and protein) every six months for all the cows who had finished production during this period. Genetic evaluations were carried out using this information and official certification of each season was given.

In Argentina genetic selection has concentrated on the durability of the animal. Consequently we

have had to change the milk-recording system to include management data: reproductive performance, health, body condition, and type classification.

The new system is undergoing a transition at present; in June the transfer of data from the old to the new system started. It is estimated that the new system will be fully functioning by September and therefore more detailed data will be available at the WHFF conference in Ireland.

Integrated System for the Recording of Production by Dairy Species (SICEL)

Collection of data has continued to be carried out on a decentralised basis during this phase. However, it has no longer been necessary to send information to the regional centres. Instead it is sent directly to the ACHA database. Nowadays the data received by this system is the data taken by the inspector during their visit each month and it is the same as the data taken by the producer themselves. This data is of considerable significance when taken.

The inspector collects the following data: milk production, protein, fat and somatic cells, in addition to the number of services and calvings, which is confirmed in the record books that each producer is required by law to keep.

The information received from producers is completely voluntary: reproductive information, body condition, health (udder and/or leg), morbidity and the causes thereof, abortions (provoked or spontaneous) and ease of birth.

The system can be accessed by the ACHA, the four regional centres, 94 ECLOs (Entidad de Control Lechero Oficial – agents of the Official Milk-Recording System) and by 2,110 system users, each with their own unique and individual login.

Benefits for ACHA

- *Faster genetic evaluation:* it is estimated that the time required for genetic evaluation will drop by one year due to the early handling of production data (monthly).
- *Increase in the data available for evaluation:* in the old system this information may have been collected by producers, but there was no database to store it.
- *Identification of different treatments:* as information is compiled every month, the system itself will highlight changes in patterns enabling producers to consider alternative approaches.

Benefits for the producer

- *Inclusion of data about producer's a herd in the database:* using their designated login a producer can access and view all information about their production online from anywhere in the world and at any time. The information available includes production data, reproductive information, health, genealogy and herd type. Certifications cannot be issued online as these are sent exclusively by ACHA in its official capacity.
- *Access to genetic indexes:* producers will have direct access to statistics relating to their animals by using the option to consult the database.