S05(T)-OP-2

Conditions of mechanical milk meters through in a Uruguay test platform. Dario Hirigoyen¹, Mauricio Calvo², Rosario de los Santos³, Alvaro Gonzalez Revello³

¹La Estanzuela, experimental station, National Agricultural Research Institute (INIA), Colonia, Uruguay

²COLAVECO, Farmers cooperative, Nueva Helvecia, Uruguay

³Milk science and technology, veterinary faculty, UdelaR, Montevideo, Uruguay

Uruguay yielding 2.200 million liters of milk annually with 3,800 dairy farms that produce milk with an average yield of 18 liters of milk per cow per day. The national herd fed is based on a grazing system under open sky all year along.

The national dairy farm has an average of 150 milking cows and 250 hectares, and the individual milk production per cow had increased in recent decades, at a rate of 2% annually.

This paper attempts to present levels of functionality and accuracy of 193 milk meters (ML), verified and tested for 5 years in a basic milk meter platform (PPML) for independent controllers' evaluation, that was installed in Uruguav in 2008.

The Measuring of milk production per cow was carried out mainly by portable mechanical instruments and to a lesser extent by fixed electronic devices. The samples universe evaluated, corresponding to 2 of the main brands in the market, used in permanent milking cycles in different dairy farms, to estimate the milk production of each animal. The MLs belonged to 8 dairy producers and 9 independent controlling companies, which specialize in offering milk control services in the country. The results obtained showed that 50,8% of ML, error was above 3%, and had being classified as "unfit" to perform measurements at the dairy farm level by following the recommended criteria of the International Committee for Animal Recording (ICAR). ML admitted to PPML, had never been valued by an independent body; only 26% of them were evaluated twice and 4% a third time, in the period covered by this evaluation from 2008 to 2012.

The results of the checks carried out, allow for the conclusion that it is necessary and indispensable to create in Uruguay, a regulatory body that establishes the limits of error and technical requirements, following international standards. The ML had been experiencing an intense wear and tear for the continuous and permanent use, between dairy farms, letting an author to suggest following up a verification year, ensuring the accuracy used to establish management measures in the herd and making productive, reproductive, nutritional and genetic management.

In Uruguay, mechanical and portable milk volume meter systems to evaluate production per cow have not been taken into account in terms of estimating efficiency by regulation or by producer organizations.

Keywords: milk meters, accuracy