**Current and future prospects for using individual animal data interpretation to optimize dairy goat farm management**

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Dairy goat production systems are currently experiencing an intensification process consisting in farm size increase, electronic identification, reproductive intensification, genetic selection and milking automation. This new situation generates "big data" susceptible of being used as a strategy for optimizing farm management. Cabrandalucía has develop a new concept of farming base on the use of "Eskardillo", a platform with a smart-phone terminal which relies on three principles: i) systematic individual data recording (milking control, genetic merit, morphology, phylogeny), ii) big data processing and interpretation and iii) interactive feedback to the farmer. This study evaluated the effectiveness of this platform by monitoring the productive parameters over 4 consecutive years in 12 control (CTL) and 12 Murciano-Granadina dairy goat farms before and after the Eskardillo implementation (ESK). Results demonstrated that Eskardillo allowed optimizing the selection of animals for breeding, replacement or culling based on individual productivity data. As a result, goats from ESK farms decreased their unproductive periods such as the first partum age and the dry period length, and accelerated the milk yield increase (+26 kg/year) in comparison to the situation before (+7.2%) or in CTL farms (+5.6%). This intensification did not negatively affect animal health and wellbeing in terms of longevity (5.0 years), functional longevity (3.7 lactations) and exiting rate (23.5%) across farms. However, a moderate increase in milk SSC was noted in ESK farms (+0.11 logs) without clinical mastitis possibly as a result of shorter dry period length or longer lactations. In conclusion, it was demonstrated that Eskardillo platform can be considered a useful strategy to optimize farm management and to contribute to the sustainable intensification of modern dairy goat farms. A further development of this platform could integrate indicators of animal health and welfare and technical-economical parameters.

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