GenTORE

Genomic management Tools to Optimise Resilience and Efficiency

@GenTORE_H2020

Coordinated by Nicolas Friggens - INRA



Press Release

September, 2019

GenTORE at EAAP 2019 and EC-PLF 2019

The GenTORE project was presented at two conferences in August 2019. The 70th EAAP 2019 took place between 26-30 August 2019 in Ghent, Belgium. The main theme of the conference was "Animal farming for a healthy world". The 9th European Conference on Precision Livestock Farming (EC-PLF) was in Cork, Ireland between 26-29 August 2019. The aim of this conference was to focus on new developments within the precision livestock farming domain. The event was hosted by Bernadette O'Brien from GenTORE's WP5 leader Teagasc.



EAAP 2019

GenTORE took a part in the IMAGE-Common Dissemination Booster (CDB) "Fitter Livestock Farming" joint session on "Burning issues in biodiversity 2: Fitter livestock farms from better gene banks" during the EAAP 2019 conference. Florian Leiber (FiBL) gave a presentation about the "Economic resilience and efficiency indicators of conventional and organic dairy farms across Europe". The effect of compliance with organic production standards on dairy farms were shown, which was assessed in terms of their economic efficiency and profitability across 4 geoclimatic classes in Europe. The results showed that, organic farms have environmental gains and their profitability is better compared to conventional farms. Also, organic farms represent high performance with low robustness but good resilience.

CITA had oral and poster presentations at EAAP. The oral presentation entitled <u>"Farm resilience: a farmers' perception case study"</u>, by Muñoz Ulecia E., Bernués A., Casasús I., Lobón S. and Martín Collado D. This study was part of GenTORE WP1, and its aim was to understand farmers' views on the relevance of actions and strategies to face challenges related to climate and market changes. In a survey, the relative importance of different actions (changes in farm management) was measured as a response to i) a 2-year-long drought and ii) a rise of input

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prices. The study revealed that actions related to saving costs were relevant in both scenarios, while the importance of others differed between situations (eliminate worst adapted animals, diversify out-farm, self-sufficiency and extend grazing vs. eliminate worst adapted animals and seek for new pasture, for the drought and input prices scenarios, respectively).

The CITA poster presentation was about <u>"Performance and oxidative status of beef cows facing short nutritional challenges during lactation"</u>, by Casasús I., Orquera K., Bertolín J.R., Ferrer J., Blanco M. These were preliminary results of a multi-site experiment developed in GenTORE WP2, involving 16 Parda de Montaña suckler cows. Their live weight, milk yield and plasma oxidative status were analyzed in response to a short but severe energy restriction in months 2, 3 and 4 post-calving. As lactation advanced, both performance and oxidative status decreased steadily. Response to undernutrition was immediate during the restriction, but resilience was reduced throughout lactation, since recovery of basal values after a 2-day re-alimentation was complete at the start but not at the end of the study.

UDL had a poster presentation about <u>"Impact of early life feeding management on fattening calves ruminal metagenome"</u> by S. Costa, G. De La Fuente, M. Blanco, J. Balcells, D. Villalba and I. Casasús (UdL-CITA). The aim of this work was to study the impact of feeding management in early life on fattening calves ruminal metagenome. The study showed that, the feeding management in early life clearly affected the calves' ruminal metagenome and this effect lasted over all their fattening period.

Lucas Noldus (Noldus) gave an oral presentation on <u>"TrackLab 2: automatic recording and analysis of the behavior of animals kept in groups"</u>. TrackLab 2 is presented as a new software package and integrated system for the acquisition and analysis of location, activity and social behavior of group-housed animals. Additionally, GenTORE results were also presented in the Noldus booth in the exhibition area.

EC-PLF 2019

GenTORE was present at the European Conference on Precision Livestock Farming, held in Cork, Ireland. The presentation by Claudia Kamphuis (WUR) informed the audience about the importance of traits like resilience and efficiency, the lack of phenotypic information regarding these traits, and how we are studying whether patterns from at-market sensor data can be used to develop proxies for them. Results showed the standard deviation from the body weight, and the slope of the milk yield to be the most promising sensor curve parameters, but overall the predictive ability of these curve parameters for resilience and efficiency seems to be limited.

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