
Preface

“Breeding for resilience: transitioning diverse livestock farming systems into the future”

This is the first time Spain has hosted an ICAR meeting. It has been our pleasure to have you here. We brought you to Toledo, in Castilla-La Mancha, a town with many centuries of history that provided a very nice atmosphere and which was very convenient because of its proximity to Madrid. However, our main objective was to show you the reality of the livestock production systems in a significant part of Spain, in other words, producing in harsh environments, which are increasingly affected by the climate change and where to maintain livestock activities is becoming more challenging.

Spain has very diverse livestock farming systems where all ruminant species play a crucial role in our economy including both beef and dairy cattle, dairy and meat goats and sheep. We, as in many parts of the world, are searching for new breeding objectives. RESILIENCE is one of the key words to achieve sustainable programs. Resilient production systems require resilient farmers, highly motivated toward innovations uptake, therefore understanding what drives farmers to innovations was our first proposed session. As some breeding programs have already realized, farmers are the main actors, thus we need to understand their motivations to really contribute to the development of the sector. Resilient livestock systems also require resilient producing animals, able to cope with challenging environments while maintaining their welfare (Session 2), animals that could be selected to better adapt to challenging environments or thermal stress (Session 3 and Session 8) and to limit their methane emissions and therefore mitigate climate change (Session 4). Session 5 (as well as 8) dealt with the advances in Precision Livestock Farming, covering both devices and new traits. Resilience will not be a new trait to be incorporated in breeding programs unless farmers commit themselves to innovation and to integrate devices that generate frequent records of production, behaviour or health, among other traits. These systems are well established and growing in the dairy cattle sector, but others still need to increase their adoption. However, nowadays, the free access to the data generated by these devices is subject to manufacturer's decision. This situation motivated the organization of a Round Table entitled “Data Ownership and Data accessibility”, the conclusions of which are published in these Proceedings. We also had very interesting sessions and workshops organized by ICAR working groups, where we would like to highlight the session on the Brian Wickhan Young People Exchange Program. It was

an opportunity to honor Brian, a person who had made an enormous contribution to the livestock sector and to ICAR.

We believe that the future of the livestock sector, will benefit from the cooperation between industry and science. ICAR is the right forum where they should meet. To show you a piece of that interaction was the objective of the key speakers during the plenary session “Resilience: from science to the industry sector”. In this ICAR 2023, we have had the participation of industry, reserachers and technicians that had no previous engament with ICAR, we have also had the presence of non-traditional species for ICAR such as horses and pigs.

All this would not have been possible without the kind support of our sponsors, the Spanish National and regional authorities, the technical support of the ICAR Secretariat and the Organizing Committee, the ICAR SubComittees and working groups who helped us with the scientific organization, the Chairs of the Sessions and all those who participated in the presentations and discussions. We hope, you have enjoyed the meeting.