Sensor Data
EXPECTATIONS, NEEDS, AND REQUIREMENTS
FARMER'S PERSPECTIVE

SANTIAGO GARCIA SOUTO
(GANADERÍA FINCA LA ASUNCIÓN, SPAIN)

ICAR / IDF WORKSHOP, TOLEDO 25 May 2023

CONAFE

ICAR 2023 TOLEDO SPAIN

1. Why a precision dairy farming?

As a dairy farmer I am increasingly required to produce a safe and healthy product:

- With efficient transformation of inputs
- Complying with animal welfare guaranties
- In an eco-friendly production system

To succeed in this demanding task I have realised that I need:

- A highly motivated, skilled, and loyal workforce
- Healthy and robust cows
- Comfortable installations
- Smart management

That could only be possible with innovation and technology support.

2. **My experience with the use of on-farm technologies**

Lessons learned on three aspects

2.1 Information: Not all that glitters is gold

- AMS allows me the collection of a huge amount of data, which needs a time-consuming learning process.

- A good use of information might eventually become a time-saving tool to make decisions, which will be economically profitable at farm level.

- Most of the available Decision Support Tools (DST) are far to be reliable.

- No matter how much you have learned from other experiences, in a precision farm there is always something you need to discover by yourself.

2.2 Human capital is the key

- A tech-savvy and inspired labor force is essential in this tech journey.

- The cost of manual tasks saved should be used to provide a better standard of living for our skilled workers.

- To take advantage of new technologies, farmers need enthusiastic and motivated workers.

2.3 Precision farming must enhance animal welfare and reduce environmental impact

- Improving animal welfare and reducing waste and gas emissions must be the stated aims of smart farming.

- A high standard of animal welfare, and a low carbon footprint have to be taken into account in the decision-making process of smart dairy farming.

3. Takeaway messages

- Sensor's monitoring is much more effective than a simple human observation. Nevertheless:
  - ✓ It is hard to understand at best all the collected data.
  - ✓ Most decision-making tools are far to be reliable.
  - ✓ It is difficult to share or make available my own data.

- Technology should be considered as an opportunity to improve work conditions in dairy farms.

- Although there is much room for improvement, precision farming can be the perfect solution for a sustainable milk production system, where sustainability includes social, economic and environmental aspects.

The dairy farm "Finca la Asunción" In numbers	
Total number of animals	285
Total number of lactating cows	185
Kg milk (daily production/cow)	45 kg
Fat % at 305 d	3.4 %
Protein % at 305 d	3.4 %
SCC	250
LS	2.68
Days Open	146 days
Average number of inseminations/cow	1.22
Age at first calving	25 months
Productive life (average number of lactations)	3.19

Thank You