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Title of the presentation ICAR member needs regarding the use of robot and sensor data

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Session:

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ABSTRACT

ICAR has a long history in providing certification of devices and guidelines for the recording of quality animal data. For official milk recording, data is collected with ICAR certified milk meters and samplers. Nowadays, the recording of animal data is rapidly expanding. Farmers have invested in robot or sensor devices and are often asking ICAR members to use these data for services like milk recording. But getting access to these data and being able to include these data in existing or new services could be challenging.

Therefore, ICAR did a survey among about 15 members (mainly milk recording organisations) on their needs to use robot and sensor data in their services. Main aims of the survey were to inventorise availability, needs and purpose of the use of robot and sensor data and the role that ICAR can play for members in using these data for their services.

All organisations that participated in the survey are using daily milk yields from robots for at least the calculation of the milk yield at the day of milk recording. Few other organisations use some robot measured traits like milking speed and teat conformation traits in their genetic evaluation. Other robot or sensor data is hardly used for official milk recording or genetic evaluation, but e.g. heat or health alerts or some robot data are reported back to the farmer for management purposes.

Main traits from robot and sensor data that members want to use for their services are components, for milk recording and genetic evaluation, body weight, milking time and milking speed.

As main hurdles not be able to use robot and sensor data in their services, members answered the need for harmonisation of robot or sensor output and uncertainty about the quality of data (e.g. is calibration, maintenance done). Many members are in the process of implementing ICAR Animal Data Exchange standards to solve issues with harmonisation of output.

For data from sensors like activity meters, a hurdle for use is the question which modifications to the data needs to be done and how to incorporate these information into e.g. genetic models or services.



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The needs for ICAR certification of devices are especially for official milk recording and it is regarded as important to maintain data quality in general. If devices would not meet the standards for certification, there is still value in ICAR assessing and validating the accuracy level of the data from such devices. The ICAR validation of devices or systems should be clear for all stakeholders (manufacturers, members and users).

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