A survey on sensors’ availability on Italian dairy farms: potential tools for innovative cow selection

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Background & Aim

The GenTORE project (Genomic Management Tools to Optimise Resilience and Efficiency across the Bovine Sector) aims at developing new models for cow selection to improve animal Resilience and Efficiency towards environmental challenges, increasing also the sustainability of the bovine sector. In this context, farm sensor systems could provide precious phenotypical information on individual cows. This survey investigated the actual spread of such devices in Italian dairy farms.

Material & Methods

Questionnaires about type of sensor system installed (pedometer, collar, eartag, or none) and parameters recorded (activity, rumination, eating, resting, and localization in the barn) were submitted to 993 dairy farmers of the northeastern Italy by the breeders’ association (ARAV) technicians in the year 2017.

Results

The 993 dairy farms reared a total of 66 779 cows, of which 72% were Holstein, 10% Crossbred, 7% Brown, 6% Simmental, and 5% Local breeds.

Conclusions

Refined parameters such as eating and rumination were available only on 3% of the overall dairy farms, covering 5% of the farms with more than 50 cows and 6% of the overall cows reared. Therefore, sensor systems are not widely used in Italian dairy farms, but there is a huge potentiality of data recording from such systems, particularly when sensors’ data will be compared with individual cow productive, reproductive, and health data.

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