TECH CARE
Integrating innovative TECHnologies along the value Chain to improve small ruminant welfARE management

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AGRICULTURE & INNOVATION

Weather station and environmental sensors

As part of the TechCare project, a weather station and various indoor environmental sensors were installed in livestock farms (https://www.froggit.de/product-471.html). The weather station collects data on outdoor temperature and humidity, wind direction and speed, rainfall, solar radiation, and atmospheric pressure. Inside the buildings, five sensors measure temperature and humidity (one also measures pressure), while two sensors monitor fine dust emission and two others track litter moisture.

These devices transmit data to a tablet via Bluetooth, with a default frequency of every 5 minutes, adjustable as needed. Data is stored on an SD card inserted into the tablet and can be accessed through the Ecowitt platform (https://www.ecowitt.net) when the tablet is connected to the internet. Ecowitt is accessible from both computers and smartphones, allowing users to monitor real-time sensor readings, download data in various formats (daily, weekly, monthly, or yearly), and visualize trends through graphical reports.

These data are cross-referenced with milk production and animal welfare assessments. The objective is to identify potential correlations between climatic variations (temperature, humidity) and abnormal changes in individual milk production.

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